

# ATLANTIC FISHERMAN

VOL. XX

Registered U. S. Patent Office

JANUARY, 1940

NO. 12

**FLEXIBLE**  
*through repeated*  
**SOAKING and**  
**DRYING!**



CHARLES PHELPS CUSHING

*That is a test for* **GOOD ROPE**

Columbian Rope stays flexible because it is *thoroughly waterproofed!* Each individual fibre is of pure Manila and is carefully treated by an exclusive Columbian waterproofing process—before it's made into rope!

There are other advantages to the exclusive waterproofing method used in Columbian Pure Manila Rope: (1) It has the non-kinking property of a correctly

balanced rope; (2) It's easy to handle in all kinds of weather, and under all conditions; and (3) It adds to the life and service of the rope.

Look for the RED-WHITE-BLUE Columbian surface markers. It's your assurance of high-quality pure Manila rope!

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 Auburn, "The Cordage City," New York

**QUALITY**  
*Controlled*  
 every step of the way

RED ———  
 WHITE ———  
 BLUE ———

**COLUMBIAN TAPE-MARKED  
 PURE MANILA ROPE**

Boston Office and Warehouse

38 Commercial Wharf

# NOT A MINUTE'S ENGINE TROUBLE

*in over 7 years  
of operation!*



*The 83' scalloper Emily H. out of Newport, and at left, Capt. E. L. Sanchez... who has spent fifty years on the water... gives the following report of his Atlas Diesel.*

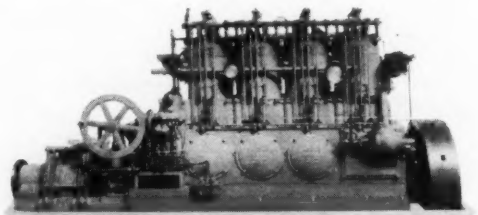


**"I CANNOT SAY A BAD WORD** about an Atlas Diesel engine. There is no better engine. Our engine has been in service for over seven years and is still going fine. In fact, it runs 100%, and has never given a minute's trouble. The cylinder walls were not checked for four years. Minimum of repairs, easy to start, and superior type fuel pumping system.

"We run summer and winter... and have been through plenty of storms. The worst of these was during the hurricane in the fall of 1938. We were fishing fifty-five miles E. N. E. of Nantucket Lightship when we received the hurricane report. We immediately got under way for the lightship but soon encountered a heavy S. E. gale. We ran twenty-five miles west of the lightship where we hove to for six hours in forty

fathoms. A sixty mile gale stove in the pilot house, broke off our swordfish stand, and washed off the housing on the winch. Otherwise we came through nicely.

"If our engine had faltered during this storm... we would have been swept on to Nantucket Shoals and would never have come out of it. In fact, two boats fishing in our vicinity were lost in this storm."



*The 4-cylinder, 135 H.P. Atlas Diesel which drives the 83' Emily H. with a 50-44 Hyde propeller. She makes the 126-mile run to the fishing grounds in 14 hours, using 6 gallons of fuel per hour running wide open.*

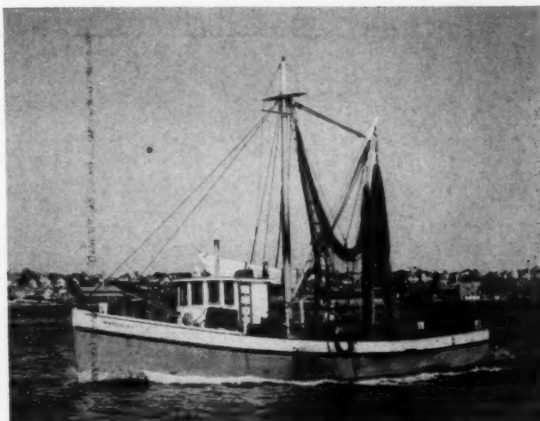
## ATLAS IMPERIAL DIESEL ENGINE COMPANY

<b>EASTERN DIVISION</b> 115 Broad St., New York, N. Y.	<b>CENTRAL DIVISION</b> 228 N. LaSalle St., Chicago, Ill.	<b>SOUTHWESTERN DIVISION</b> 5726 Navigation Blvd., Houston, Texas	<b>WESTERN DIVISION</b> 1000 Nineteenth Ave., Oakland, Calif.
Gloucester — Providence — Philadelphia — Baltimore — Charleston — Miami — Jacksonville — Tarpon Springs — New Orleans Fort Worth — Houston — El Paso — Terminal Island — Seattle — Portland — Vancouver — Ketchikan — Honolulu — Manila			

# ATLAS *Imperial* DIESEL ENGINES

## Says the Owner, Capt. Jas. Lawrence:

"When I built my boat in 1929 I thoroughly investigated the different oil engines on the market. The fine performance of a number of Wolverine Diesels with which I came in contact, and the high praise their owners bestowed on them, decided me in favor of one of them. Ten years of faithful and trouble-free service of this engine—a 75 HP two-cycle machine—induced me to replace this engine with another Wolverine Diesel of 100-120 HP, this time a four-cylinder four-cycle machine. The 75 HP would easily have lasted another ten years or more, with little expense. However, I needed more power, and the new Wolverine is surely giving it to me."



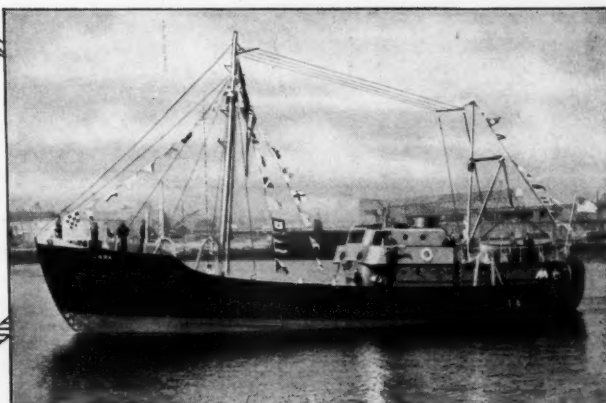
The 60 ft. dragger "Mandalay", owned by Capt. Jas. H. Lawrence of New London, Conn., powered with a 100-120 hp.,  $8\frac{1}{2} \times 12\frac{1}{2}$ , 4 cylinder, 4 cycle Wolverine Diesel engine. She has a speed of 9.66 knots.

Catalogue No. 135 Upon Request

WOLVERINE MOTOR WORKS Inc.  
Foot of Union Avenue BRIDGEPORT, CONN.

## WOLVERINE DIESELS

**F-M DIESELS**  
**Are Popular**  
**"Fishermen"**



Striking example of the popularity of Fairbanks-Morse equipment in the fishing industry is furnished by the Trawler "Lark," owned by the Cape Cod Trawling Company. This vessel, believed to be the first of her kind built entirely of wrought-iron welded construction, has a great deal of F-M equipment aboard. Her main engine is a 5-cylinder Model 37 F-M Diesel with oil-cooled pistons, which develops 575 hp. at 300 R.P.M. Other F-M equipment includes three Model 36 F-M Diesels, four pumps, a water system, and several F-M Motors and Generators.

Each of the F-M Diesels aboard the "Lark" is the right type of marine engine for its job whether that be continuous heavy-duty work under wide-open throttle or intermittent auxiliary service. When you build or convert—why be satisfied with a compromise? F-M has the right engine. Fairbanks, Morse & Co., Department 6, 600 S. Michigan Avenue, Chicago, Illinois. Branches with service stations in principal ports.

7672-0A27-531

**FAIRBANKS-MORSE**


DIESEL ENGINES  
PUMPS  
ELECTRICAL MACHINERY  
FAIRBANKS SCALES  
RAILROAD EQUIPMENT

WATER SYSTEMS  
WASHERS-IRONERS  
FARM EQUIPMENT  
STOKERS  
AIR CONDITIONERS



**Diesels**





**WHEN SHE "ICES UP" ABOVE  
-YOU NEED ESSO MARINE  
BELOW!**

**T**HIS season's sudden squalls and heavy seas will be mighty tough on your vessel's engine. You'll need dependable marine lubricants to see you through the dirtiest of weather...oils that will hold their protective film under the most grueling conditions.

Thousands of skippers know they can always get such reliable lubricants at the Esso Marine Sign! Not even *sub-zero* weather can slow down these top-notch lubricating oils. They flow *instantly* to every moving part and prevent disastrous friction that spells trouble for all hands.

You'll find it wise, too, to pull into an Esso Marine dock for fuels that stand the gaff of that extra-heavy pull through high-running winter seas.

Esso Marine fuel and Esso Marine lubricating oil make a combination that can't be beaten for hard-working, dependable and economical operation. Follow the example of the seasoned skippers of the Atlantic fleet! Put in at the Esso Marine dock before you next head out for the grounds!



Esso Marine lubricants are distributed by these major oil companies: Standard Oil Company of New Jersey—Colonial Beacon Oil Company—Standard Oil Company of Pennsylvania—Standard Oil Company of Louisiana—Standard Oil Company (Inc. in Kentucky)—Standard Oil Company (Ohio)—Humble Oil & Refining Company—Imperial Oil, Limited (In Canada). Direct inquiries to Esso Marine, 26 Broadway, New York City.



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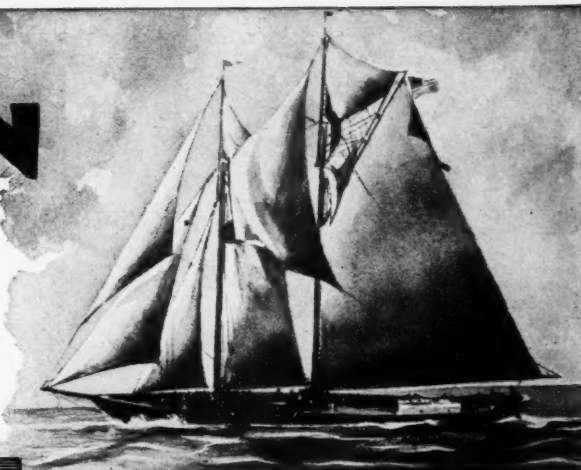
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Covering the Production, Processing and Distribution of Fresh, Frozen, Filleted, Canned, Dried, Smoked, Salted and Packaged Fish and Shellfish.



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## Census to Collect Figures on Processed Seafood

THE U. S. Census Bureau takes no direct interest in seafood until it has reached a wharf and becomes an article of commerce. From that point on, however, the Bureau will, this year, begin to collect highly valuable and significant data for the information of commercial fishermen of the nation.

Figures on the fish and shellfish processed by the canning and curing plants will be assembled by a Census of Manufactures while a Census of Business will trace the distribution of fresh, cured, processed, frozen and canned fish and other sea foods through wholesale channels. No attempt is being made by the Census of Business to follow the trail of sea food as a commodity through its retail schedules but a census will be taken and a specific report made on fish and sea food markets and their dollar sales.

### Processing of Fish Oils

Beside bringing up to date and throwing additional light on operations and productions of fish and sea food canneries, the Census of Manufactures will collect scattered but reliable data on the processing of fish oils in several industries. For instance, fish and marine animal products will be treated as an independent industry this year, though the industry will be covered under the same schedule as linseed, essential and miscellaneous oils. Fish and marine animal products processors will each report production under two heads, the fish products processors indicating the gallons of oil and the tons of meal and scrap processed and the total value of each, and the marine-animal processors the total oil extracted in pounds and its value supplemented with the value of all other products.

Fertilizer manufacturers are being asked to record the number of tons of fish scrap and meal they used during 1939 under the materials consumed section of the special schedule devoted to fertilizers. There may also be figures of interest to commercial fishermen or to processors of fish for industrial purposes collected through the schedule covering glue. Manufacturers of glue will be requested to state how many pounds of fish glue they have produced during 1939 and the value of it.

The figures on fish oils being gathered by several manufacturers schedules supplement figures collected regularly by special animal and Vegetable Fats and Oils Census conducted every three months by mail by the U. S. Census Bureau. This census is limited to major producers, processors and industrial users and collects figures on the domestic production, consumption and stocks on hand of other fish oils and marine animal oils and the amount of pounds of whale, cod, cod-liver and other fish oils imported quarterly and for the year.

### Values of Processed Products

In 1937 the fish and sea food products processed were valued at \$70,800,000. This was in excess of \$15,000,000 above the 1935 figures of \$55,100,000 and almost double 1933's reported \$38,700,000.

The canning and curing of fish and sea food is an outstanding industry in sixteen states, eleven of which, Alabama, Florida, Louisiana, Mississippi, Georgia, South Carolina, North Carolina, Virginia, Maryland, New York, Massachusetts, Maine, and Illinois border the Gulf of Mexico, the Atlantic Ocean or the Great Lakes. California, Oregon and Washington are the only three states not in this group and they are all on the Pacific ocean. Maine with 55 had the largest number of fish and sea food canning and curing plants in the country in 1937, according to figures reported to the Census Bureau, with Washington next, 54. However, California's 49 plants reported a total production valued at nearly \$38,000,000. Maine ranked third in production that year with six and a half million dollars of products. Other ranking Eastern and Southern states were New York with \$5,665,000 value of productions during 1937, Louisiana with \$4,630,000, Massachusetts with \$3,821,000 and Mississippi with \$2,971,000. Next to California's 6,499, Louisiana employed the greatest number of wage earners in its plants, 2,530 with 2,211 Mississippians earning their daily bread in this kind of work.

Of 1937's \$70,800,000 nearly \$19,000,000 was represented by tuna and tunalike fish practically all of it being canned in California. The production of canned sardines in 1937 amounted to nearly \$13,600,000 of which Maine accounted for about \$5,000,000, topped only by California's approximate \$8,600,000. Massachusetts and California, only two states reporting, processed more than \$2,670,000 worth of mackerel while Mississippi was responsible for \$1,570,000 of the \$7,044,000 of shrimp processed in the country. Mississippi also accounted for \$1,238,000 of the total production of oysters valued at \$2,840,000, while Louisiana contributed about \$450,000 and South Carolina \$428,000 to this total.

New York took first place in 1937 in the production of finnan haddie with \$60,000, with Massachusetts accounting for \$55,000 of the remaining \$98,000. Massachusetts was the main processor of salted and pickled cod and Massachusetts and Maine accounted for practically all the haddock, hake, pollock and cusk green-salted, dry-salted and boneless processed that year. Maine processed the bulk of herring and New York the bulk of salmon. Illinois rated next to New York in the production of miscellaneous smoked fish.

In collecting and compiling fisheries data the U. S. Census Bureau works in close cooperation with the U. S. Bureau of Fisheries.

# The Story of Green Turtle Soup

Key West, Florida, is the Home of an Unusual Enterprise, Conducted by A. Granday Canning Co.

**W**HEN the sails of the Turtle Boat appear at the Bay at Key West, Florida, it's an occasion, for its cargo is one of the strangest, and it comes in only about once in every eight or ten weeks. The name of this unusual two-masted sailing schooner, from which eventually comes Green Turtle Soup is the *A. M. Adams*, which is owned and commanded by Capt. Allie O. Ebanks.

Numerous small boats are engaged regularly in catching turtles for the Key West concern. The schooner *A. M. Adams* is engaged to keep the small boats supplied with food stores, tackle, etc., and take delivery of the turtles from them and carry the turtles to Key West.

Looking down the top deck of the boat as it nears port one sees a strange cargo. From Mosquito Cays off the Nicaraguan Coast comes the cargo of huge green turtles.

The vessel, built three years ago, is of English registry with Georgetown, Grand Cayman, B.W.I., her home port.

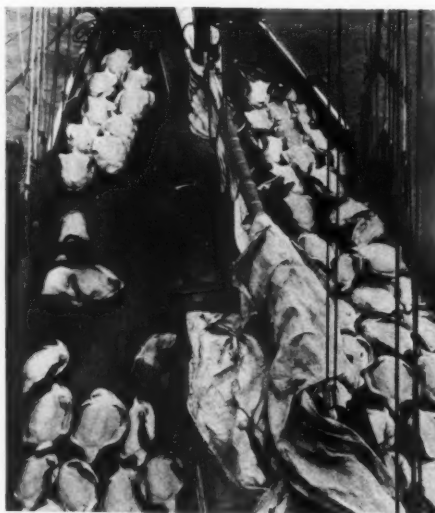
When the turtles are taken on, all available space on the boat is used for loading them. They are packed closely together in lines on the deck. To keep them from shoving about, front and back flippers are fastened with thatched cords. Below the upper deck, in the hold of the ship, two tiers are packed with turtles so tightly that their shells overlap.

As the turtle schooner approaches Key West with its live cargo, it is anchored out in the harbor. Barges are towed out and brought alongside the schooner. The turtles are delivered to the barge to be brought back to the "crawls."

With block and tackle the turtles are lifted from the hold. With some of the big turtles weighing 500 lbs., it takes five men to swing a turtle over the gunwale of the schooner. It requires three to four barge loads to empty the boat.

When a member of the crew catches a turtle he cuts his initials in the bottom shell to identify his catch. Each man gets credit and payment according to the number of pounds that bear his initials.

Before taking the load of turtles off the schooner, the barge is flushed with water. On the barge, the live turtles are



Cargo of green turtles on the "A. M. Adams".

packed tightly like sardines. During the trip to shore, they are continually "wet down."

While the unloading from the schooner has been taking place, a man has been busily preparing for the landing of the catch. On the wharf, every nail has to be hammered down so that the turtle's shell will not be gouged when it is dragged along on its way to the "crawls."

After the barge has reached the dock, the captain of the boat and a representative of the cannery check the initials on the bottom shell of each turtle, thus keeping a careful record of the catch.

One by one the turtles are dragged to the dock. A rope is slipped around a flipper and the turtle is dragged away on his back. On the dock behind the cannery two men cut the thatched cords binding the turtle's flippers on each side, carry it over to a chute and slide it down

into a pen, known as a crawl. Here the turtles are kept in captivity, in water, until their turn comes to be slaughtered.

Whenever a turtle is needed for soup, a noose is slipped around one of its flippers and it is hauled up the chute. Taken to the cannery slaughter house, the turtles, unaware of their impending doom, await decapitation.

The turtle cannery, established in 1890 by a famous French chef, who had a secret recipe for Green Turtle Soup, is now owned by a native Key Wester, Norberg Thompson, who operates the plant as A. Granday Canning Co. The turtle cannery is one of the many Thompson fishing interests at Key West, including Thompson Fish Co., Inc. The general manager is A. M. Adams.

Nobody has ever been allowed to see the actual canning operations, obviously to preserve the secrecy of the process. Operations are carried on in a spotless, modernly equipped canning and packing room.

No. 1 (10 ounce), No. 2 and No. 3 cans are supplied by American Can Company, while 1 lb. 4 ounce glass tumblers are furnished by Capstan Glass Co. The can sealing machine is from American Can Company, and the vacuum glass capping machine from Anchor Cap and Closure Corp. Canning machinery, retorts, etc., are from Food Machinery Corp.



Dock showing turtles being unloaded from barge and slid down chute into crawl.



The interior of the turtle soup cannery of A. Granday Canning Co., Key West, Fla.

# New York National Motor Boat Show

## Large Number of Exhibitors Show Many New and Improved Products

ONE of the largest and most attractively staged National Motor Boat Shows ever held opened January 5 at the Grand Central Palace, New York City, and settled down for an eight-day run. The following exhibits, while by no means comprising a complete list, were called particularly to our attention. Other exhibits will be described in our next issue, which will also contain additional photographs.

### Essomarine Exhibit Hits New High

The Essomarine exhibit, always a highlight at the National Motor Boat Show, hit a new peak in novelty and mirth at Grand Central Palace this year. The Esso Marketers presented Navigavarama, "A Glimpse Into the Seas of the Future."

An ingenious invention by old "Doc" Seuss, the Navigavarama unfolded a fantastic sea abounding in islands and shoals and queer creatures of the deep, including the Powerless Puffer, the Carbonic Walrus, the Flaming Herring and the Blue-Green Funk Fish.

Sea-going and indoor sailors tried their hand in a game of navigational skill by piloting the Essomarina flagship, the *Nellee Bellee Blurtz III*, on a cruise through the perilous waters around Cape Monstrous, inhabited by the "Associated Demons of the Deep." Those who brought the ship safely into the Port of Essomarina were rewarded with a special edition of the "Sealawyers Gazette," printed on the premises and heralding the feat in three-inch headlines.

On the serious side of the exhibit, R. B. Bedford, Jr., was in charge of a staff of marine fuel and lubrication experts from the Standard Oil Company of New Jersey who were in constant attendance to advise motor boat owners on their problems. Included in the booth decorations were two of the familiar waterfront Essolene and Essodiesel pumps, and two mechanical exhibits showing a series of twelve pictures demonstrating Essex Marketers services and products.

### 1000 Seuss Admirals Cavort

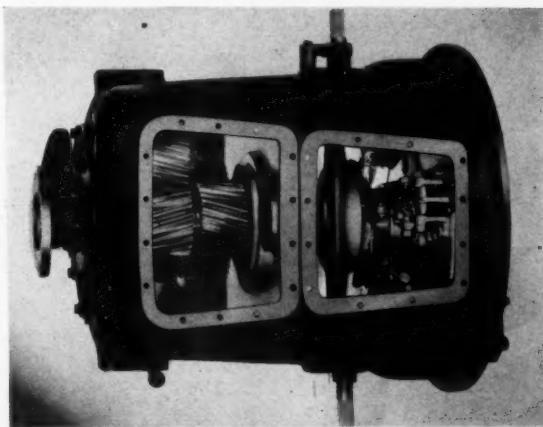
The grand ballroom of the Astor was transformed into a huge poop deck when the Seuss Navy Admirals, the fun making unit of the Show, held their fourth annual initiation and maneuvers, with an attendance of more than 1,000.

The organization, sponsored by Esso Marine, gathers each year to indulge in hilarious doings, and this year's program was no exception. Ted Giesel ("Old Doc Seuss"), the admiral-in-chief, gave the initiating oath, and a specially arranged show, including stars from Broadway productions, but working into the nautical spirit of the affair, entertained the admirals.

A surprise appearance was that of the Bayway Refinery Band of the Standard Oil Company of New Jersey, a group of 40 musicians who played a stirring finale, assisted by a double octette seen in many Broadway productions. R. B. Bedford, Jr., of the Esso Marine shallow shaft division, presided and welcomed the "admirals."



Phonemaster manufactured by  
General Communication Co.



Twin Disc Company Model MG-125 marine gear with a window through which the internal mechanism may be observed.

### Two New Superior Diesels

In the exhibit of six Superior Diesels by the National Supply Company, of Philadelphia, were two new models of marine Diesels, one from the plant in Springfield, Ohio, and the other from Philadelphia. Both are designed to fit into specific fields and are of the 4-cycle, moderate speed, heavy duty type.

Model "IM" from Springfield, has a bore of 8½ inches and a stroke of 10½ and can be had with 5, 6 and 8 cylinders developing 195, 235 and 310 horsepower, respectively, at 700 r.p.m. The Philadelphia development, Model MRD-4, is a 4-cylinder engine with 5½ bore and 7 inch stroke rated at 90 horsepower at 1200 r.p.m. In design, this engine practically duplicates the established six and eight-cylinder Model D Superiors of the same size, which develop 170 and 230 horsepower respectively at 1500 r.p.m.

Of particular interest is the extremely simple and efficient fresh water cooling system exhibited on the MRD-4 and other models of Superior's exhibit. Essentially this system comprises a tubular heat exchanger accessibly mounted on the exhaust manifold and a large capacity sea water pump mounted on the reverse gear housing and directly driven by one of the timing gears. It can be easily installed on all Model A or D engines, regardless of when built.

The MRD-4 is designed to meet the commercial boat operator's need for a moderately priced, economical, compact and rugged Diesel engine. Conservatively rated for long life and low maintenance cost. A moderate weight, moderate speed engine of simple design.

While the stationary or industrial engines have a wet sump and one lubricating oil pump, the marine engines have a dry sump with two lubricating oil pumps, one a main pressure pump and the other a sump pump. The same strainer, filter, and cooler are used but are connected to the discharge of the sump pump instead of the pressure pump. With the dry sump system, the oil will be carried in an overhead day tank which will be standard equipment.

The marine engine has a noteworthy single lever control for speed, start, stop, and run in either direction. A positive interlock prevents the control from going into reversing position until the camshaft has been fully shifted. Pilot valves operate to actuate an air cylinder which shifts the camshaft.



### Fairbanks-Morse New Auxiliary

The new Fairbanks-Morse model 45-A marine Diesel was shown in the Company's booth on the main floor of the Motor Boat Show with three other motors.

It is adaptable not only for auxiliary generating service, but for the propulsion of small boats. Both variations were shown. A 5-horsepower one cylinder unit was hooked up with an F-M 32-volt generating set and a 10-horsepower 2 cylinder motor for propulsion work was shown with its Joes gear and direct drive.

The engine is a single-cylinder,  $3\frac{1}{2} \times 4\frac{3}{4}$ , four-cycle, solid injection, full Diesel type with full pressure lubrication. It operates at 1200 r.p.m. and readily can be started by hand.

An eight-cylinder,  $8 \times 12\frac{1}{2}$ , Model 35; an eight-cylinder Model 36 marine propulsion engine with 2-to-1 gear, and a two-cylinder Model 42 marine generating set for 125 volt direct current rounded out the exhibit.

The eight cylinder, Model 35E10 marine Diesel engine is directly reversible and of the two cycle, full Diesel, solid injection design. The engine is rated at 320 SHP at 400 RPM which corresponds to an S.M.E.P. of 40.8 lbs. per square inch and a piston speed of 833 feet per minute.

The piston is of the trunk type, long in proportion to its diameter for maximum durability, and fitted with six compression rings and one oil scraper ring. Piston pin bearings are of the needle roller type.

The crankshaft is drilled for pressure lubrication. Lubrication is of the dry sump type and both reversible rotary lubricating oil pumps are built-in at the flywheel end of the engine. A shaft extension is provided, forward, for power take-off.

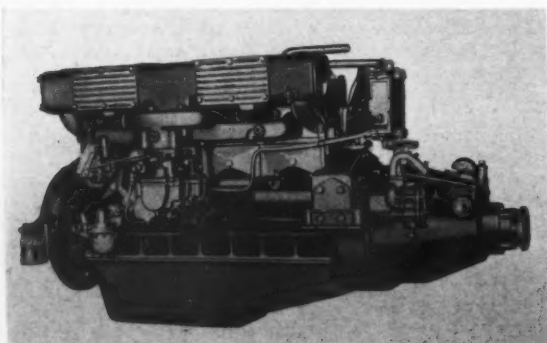
Individual injection pumps are used for each cylinder, easily accessible for inspection or adjustment. Accurate speed control is through a Pickering governor with automatic over-speed stop. Starting controls are simple and convenient.

A full complement of auxiliaries is available. Built-in centrifugal circulating pumps for raw and fresh water are mounted at the forward end. A built-in air compressor is provided. A built-in bilge pump is available. Pilot house control is optional.

The 2-cylinder Model 42 engine for a generating set is a heavy duty, two-cycle, solid injection, full Diesel operating at a moderate speed. It is offered in two and three cylinder units, each capable of carrying continuously the full rated output of the generator.

Main and connecting rod bearings are pressure lubricated and a force feed lubricator provides lubrication to other working parts.

The D. C. Generators are of Fairbanks, Morse manufacture and are of the marine type. They are of drip-proof construction with moisture-proof windings and corrosion-resisting fittings. Generators are 2-wire 125 or 250 volts, or 3-wire 125-250 volts, either of which may be furnished compound or shunt wound, depending on service requirements. Two ball bearings support the armature. Commutating poles are provided to prevent sparking.



Port side view of Chrysler's new Royal eight, showing manifold, carburetor and other accessories.

### New Caterpillar

The new 35-horsepower "Caterpillar" Diesel Marine Engine was on display.

This four-cylinder engine, known as the Model D4400, develops its maximum horsepower at 1500 r.p.m., and like the other four Diesel marine engines built by the Company, is rated for continuous service.

The Caterpillar Tractor Co. exhibited in 660 square feet of space. In addition to four sizes of engine, it showed a selection of enlarged action photographs, charts, and other illustrative material.

The V-8, 135-horsepower, D17000 Marine engine, the six-cylinder, 100-horsepower, D13000 Marine engine, and the six-cylinder, 55-horsepower, D4600 Marine engine were shown.

Each of the engines was completely equipped and ready for installation with only five connections to be made. The Company points out that it is only necessary to connect the exhaust to atmosphere, sea water suction to raw water line, heat exchanger outlet to overboard discharge, fuel oil line to main storage tank, and to align the thrust bearing shaft and connect it with the propeller shaft.

All "Caterpillar" engines on display were equipped with two types of starting equipment. In addition to an electric starting motor, they had a small gasoline engine of sufficient horsepower to turn the larger Diesel engine under full compression for as long as necessary, regardless of atmospheric temperature.

### Red Wing Exhibit

The Red Wing Motor Company demonstrated how one of its new lightweight inboard motors can be hooked up in operation of the so-called knee action inboard-outboard drive on outboard type hulls.

The drive was mounted on a boat transom and connected to the motor to show how easily the outboard hull can be adapted to inboard power. The motor used in the display was a four-cylinder, "Meteor" 7-18 horsepower engine of unusually light weight.

Red Wing also showed a new Hesselman Spark-Diesel, a six-cylinder,  $4\frac{1}{2} \times 5\frac{1}{2}$ , engine developing 100 horsepower at 1,500 r.p.m. and a maximum of 125 at 2,000 r.p.m. This model weighs about 2000 pounds and is available with or without reduction gear. A similar size is being developed to operate on gasoline and put out 150 horsepower.

Representative models of Red Wing's line of 20 gasoline motors from 4 to 125 horsepower and Hesselman Spark-Diesels of 35 to 200 horsepower completed the exhibit.

### Chrysler Power Plants

Three improved new power plants designed to service a wide range of boating needs were introduced by Chrysler.

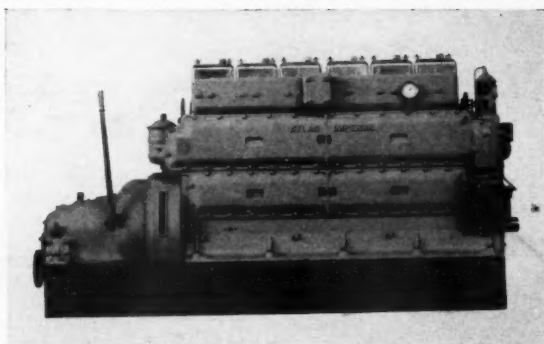
The Ace, which has 6-cylinders and a bore and stroke of  $3\frac{1}{8} \times 4\frac{3}{8}$  inches, will develop 46 to 78 brake h.p. at 1600 to 3200 r.p.m. This engine is furnished in straight drive types, as well as with 1.43—1.95—2.56 and 3.46 to 1 reduction gears. This engine is also built with an integral type Vee reduction drive with both 1.43 and 2.05 to 1 reduction gears.

The new Chrysler Crown, also has 6-cylinders. Its bore and stroke is  $3\frac{3}{8} \times 4\frac{1}{2}$  inches and it will develop 58 to 103 b.h.p. at 1600 to 3200 r.p.m. This engine is also furnished in straight drive types and with the same reduction gear ratios and Vee drives as the Ace.

Both of these engines have been in production several years, however, many minor improvements have been incorporated in their design.

The new Royal Eight, which is exactly the same bore and stroke as the old Royal Eight, that is,  $3\frac{1}{4} \times 4\frac{7}{8}$  inches, will now develop 76 to 143 b.h.p. at 1600 to 3200 r.p.m. This engine is now offered with 1.43—2.03—2.51 and 3.17 to 1 reduction gears.

The Ace and Crown with 3.46 to 1 reduction gear have become extremely popular in the fishing trade for boats from 36 to 42 ft. long. These engines are now turning wheels up to 34 inches diameter with pitches as high as 30 inches with unusually low operating costs.



The new size 6 cylinder,  $6\frac{1}{4} \times 8\frac{1}{4}$  Atlas marine unit, rated to develop 135 hp. at 900 rpm.

#### Four Atlas Diesels

The Atlas Diesel Engine Corporation showed four of its "compact power" Diesel engines. The Atlas engines feature simplicity of design, easy starting and quiet operation.

The largest unit in the display was a 6-cylinder,  $6\frac{1}{4} \times 8\frac{1}{4}$ , Atlas Imperial reverse and reduction gear marine engine which is rated to develop 135 horsepower at 900 r.p.m. With it was a 3-cylinder, 15-horsepower at 1800 r.p.m., Atlas Lanova marine propulsion engine with reduction gear, for smaller vessels.

Two marine auxiliary units for the generating of electricity rounded out the exhibit. One is a 3-kilowatt, single-cylinder Atlas Lanova model and the other a 9-kilowatt, 15-horsepower, 3-cylinder Atlas Lanova adapted from the same basic design as the propulsion unit of the same bore and stroke,  $3\frac{1}{8} \times 3\frac{3}{4}$ .

The new Atlas-Lanova propulsion engine is said to be the smallest Diesel using the Lanova combustion system. But the construction differs in detail from that usually associated with the Lanova system. Instead of the combustion chamber being made in the form of two abutting lobes, of figure 8 shape, the cylindrical-shaped space under the inlet valve is utilized as a turbulence chamber, with the energy cells disposed at a small angle to the center line through the injection valve.

In the 6-cylinder engine the cylinders are cast embloc and the Bosch fuel system is used. A Twin Disc reverse and reduction gear is built into the engine, the reduction being 2 to 1.

#### Three New Universal Engines

A new six-cylinder and a new eight-cylinder motor, a re-designed and improved Flexifour and a retractable drive especially built for fishing boats were among the interesting additions to the line which the Universal Motors Company, of Oshkosh, Wis., displayed at the Motor Boat Show.

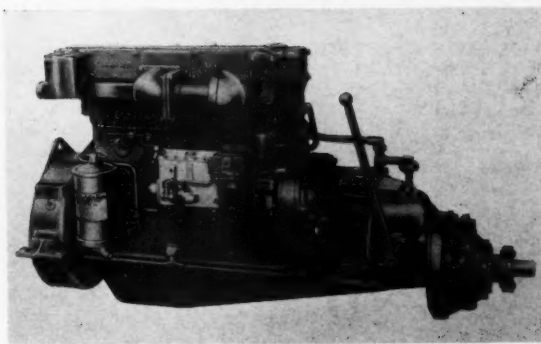
The new six and eight-cylinder engines are known as the Sea-Lion series. The six, labeled 6-260, is designed around the same specifications as the Cruiser Six, but greater power is obtained by a special manifold and a marine carburetor created for high power. The new six is rated at 110 horsepower at 3400 r.p.m.

The Sea-Lion eight, model 8-347, develops 141 horsepower at 3400 r.p.m. on a cubic inch piston displacement of 347 with a special large manifold and dual carburetion.

Universal's Flexifour is completely re-designed into a shorter, lighter and more compact unit than its predecessor. It develops 40 horsepower at 3500 r.p.m.

The retractable outboard drive developed by Universal's engineers will be of especial value to commercial seine fishermen. It provides a simple means of obviating the fouling of nets on propellers and permits the beaching of power fishing craft without damage to underwater mechanisms.

The new retractable drive requires the construction in the boat of a small rectangular well slightly offset from the keel. It is in this well that the lower gear housing, attached to a base plate on which are mounted lifting racks at each corner, is raised and lowered. Power is transmitted to the lower unit through a shaft that moves up and down with the assembly through the upper gear housing.



Newest of the Buda-Lanova Diesels, Model 6-DTM-317. This is a 90 hp. six,  $3\frac{3}{8}$ -inch bore,  $5\frac{1}{8}$ -inch stroke.

#### The Buda Company

Buda exhibited 5 models of Diesels, 1 Diesel Powered Generator set, 3 gasoline engines and 3 small "Air Jacketed" in-board engines. In addition an instrument for testing nozzles on various types of Diesel Engines was also displayed.

The newest model engine was the 6-DTM-317 Buda-Lanova Diesel, which is a cylinder model with  $3\frac{3}{8}$  in. bore and  $5\frac{1}{8}$  in. stroke. The engine is rated at 90 h.p. maximum.

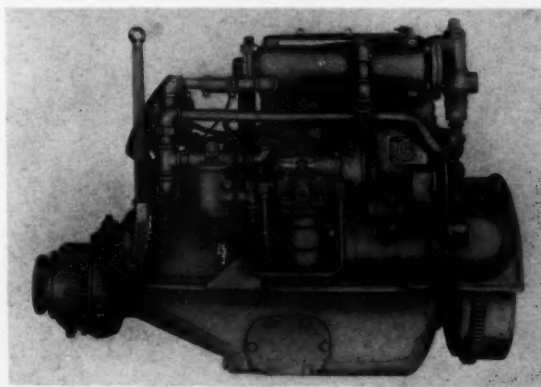
Other models of Buda-Lanova Diesels exhibited were the 4 cylinder model 4-DTM-212 and three 6 cylinder models—6-DTM-468, 6-DHM-691 and 6-DHM-909. One important feature of present-day Buda-Lanova Diesels is that glow plugs have been entirely eliminated.

Buda announced, but did not exhibit, a new Diesel model which is particularly adaptable for work boat and tow boat service. This is their model 6-DH-1879 which has a  $6\frac{3}{4}$  in. bore and  $8\frac{3}{4}$  in. stroke. The maximum developed horsepower is 248. This engine is equipped with Twin Disc reverse and reduction unit for workboat and towboat use. All other models of Buda-Lanova Diesel Engines for workboat service are available with Twin Disc Clutch.

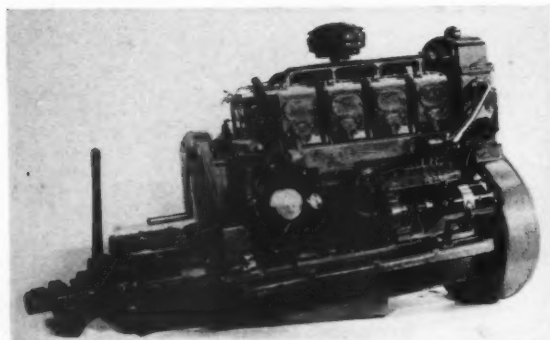
A 15 K.W. Generator Set, powered with a 4-DTG-212 Diesel was exhibited.

Three models of Buda Gasoline Engines were exhibited. These are the new models HM-217 and HM-326. The other is the LM-525. The HM-217 is a 4 cylinder model with  $3\frac{13}{16}$  in. bore and  $4\frac{1}{2}$  in. stroke. The HM-326 has 6 cylinders, bore of  $3\frac{13}{16}$  in. and stroke of  $4\frac{3}{4}$  in.

The complete line of Buda Inboard "Air Jacketed" Marine Engines was exhibited for the first time. These include the 1—EMR-6, 1—EMR-9, and 1—EMR-23—with 1  $6\frac{10}{16}$ , 2  $\frac{1}{4}$  and  $5\frac{3}{4}$  h.p. respectively. Buda Inboard Engines have an exclusive feature in their "Air Jacketing". This feature gives the advantages of water cooled engines at lower cost, eliminates water pumps, makes possible idling without overheating, all hot air is taken out of the boat.



The 3-cylinder,  $3\frac{1}{8} \times 3\frac{3}{4}$  Atlas Lanova marine engine, rated to develop 15 hp. at 1800 rpm., with reduction gear.



*The RND4 makes its first public appearance at the Palace. It is a 4-cylinder Diesel manufactured by Palmer Bros. Engines, Inc. It develops 40 hp. at 1200 rpm., weighs 2500 lbs.*

### Palmer Diesel

The Palmer RND4 full Diesel is a 4 cylinder job that delivers (continuous duty) 40 h.p. at 1200 r.p.m. Compression 500 lbs., injected pressure 1650 lbs. The cylinders are  $4\frac{1}{8}$  bore x 6 inch stroke. The engine measures 33 inches from bed to extreme top, 72 inches from flywheel cap to end of coupling and 26 inches extreme width. It weighs 2500 lbs. Its radical difference from other Diesels on the market is the 2 diameter piston. The unique design of the piston permits only the small diameter plug to enter the chamber. The result is that with the combustion of the fuel and the movement downward of the piston, the area of the piston exposed to the pressure becomes greater.

Another advantage of the design of the explosion chamber is the turbulence that results with the compression and further with the injection of the fuel. Combustion is immediate and complete.

Even though the engine is equipped with an absolutely dependable electric starter, provision has been made for starting cold by hand. A pressure release is provided. A ratchet starting handle is permanently mounted on the after end of the engine on the port side just over the clutch case. With the pressure released it is practical to spin the engine, gradually building up a centrifugal speed of the flywheel sufficient to start the engine by simply closing the pressure release. The to start the engine by simply closing the pressure release.

Accessibility is the keynote of the entire design. The engine may be serviced without removing it from the boat. Ample hand holes with abundant working space are provided for every bearing. The timing mechanism is brought out on the

starboard side of the engine which permits adjustment by removing a simple housing. Interchangeable bearings are used throughout which eliminate need for scraping and finishing.

The entire oil and oil cooling system is self-contained and self-actuated offering absolutely dependable accessibility and the freedom from exposed piping. Fresh water cooling is employed with a salt water system cooling the fresh water. The clutch is the heavy duty Palmer clutch with the forward speed driven through toothed clutch plates and not through gears.



*Cape Cod Navigator manufactured by Gensound Mfg. Co.*

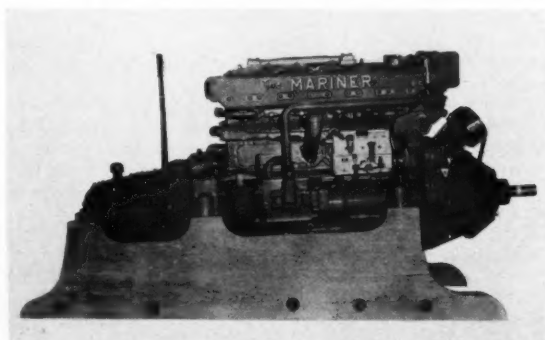
### Mack Marine Diesels

Two new marine Diesels, each specifically designed for definite purposes, formed the nucleus of the Mack Manufacturing Corporation's first exhibit at the Motor Boat Show.

Known as Mack Mariner engines and designed as Type W for work boat use, and Type Y for yachts, the motors combine the desirable and important features of compactness, dependability and economy of operation to the highest degree. Although the Mack company only recently entered the marine engine field, it occupies an advantageous position as far as service is concerned, for direct factory service is provided at branches at 28 tidewater and 14 fresh water ports, while numerous dealers, including those in 24 foreign ports, provide spare parts and service.

Both of the new Mack engines are 6-cylinder,  $4\frac{3}{8}$  x  $5\frac{3}{4}$  motors of 519 cubic inches cylinder capacity. The work boat engine develops 100 horsepower at 1800 r.p.m. with a compression of 480 pounds per square inch. It has built-in fresh water cooling systems employing Harrison heat exchangers.

The Lanova system of controlled combustion, used in the motors, provides a smooth, shockless flow of power insuring quiet performance. Injection is at moderate pressure by means of a Bosch multiple unit pump mounted on the side of the engine with a separate fuel line leading to each nozzle.



*The new Mack Mariner Diesel engines are 6-cylinder with bore and stroke of  $4\frac{3}{8}$  x  $5\frac{3}{4}$ ". The Type W engine for workboat installation develops 100 hp. at 1800 rpm.*

### Gray Expands Line

The Gray Marine Motor Company, of Detroit, had a comprehensive exhibit of its products, having expanded its line to 25 different sizes and types of gasoline motors and five sizes of Diesels.

Every 1940 Gray gasoline engine has the exclusive individual porting and manifold design, self-adjusting oil seals, independent distributor drive, low friction shell bearings and pressure-lubricated tappets. In every model, water-jacketing is built all around and in between every cylinder bore to insure even expansion, keep cylinder walls round, reduce piston wear and oil consumption.

The "Light Four," with a piston displacement of 69 cubic inches developing 16 horsepower at 1800 r.p.m. in an overall length of  $30\frac{1}{8}$  inches and a weight of 335 pounds, is a brand new model. The "Seascout Four" and "Four-22" have been stepped up in size to 91 and 112 cubic inches, respectively, with no increase in size or weight. The new "Four-22" is conservatively rated at 38 horsepower at 2400 r.p.m. and will be useful in auxiliary yachts, tenders and fishing boats.

Five sizes of Diesels are in production. All have a bore of  $4\frac{1}{4}$  inches and a stroke of 5 inches, a basic cylinder size of 71 cubic inches and use interchangeable parts. They are of single-cylinder, 25 horsepower; two-cylinder, 55-horsepower; three-cylinder, 82-horsepower; four-cylinder, 110-horsepower; six-cylinder, 165-horsepower.

The two-cylinder is a new model developing its maximum power at 2000 r.p.m. and was shown at the Motor Boat Show for the first time to supplement the other models which have been in production for two years. This model is designed for small boats in the range of 26 to 35 feet length.



### Cummins Super-Charged Diesel

A new lightweight, 125-horsepower, supercharged Diesel motor was among the five marine units shown by the Cummins Engine Company of Columbus, Ind. The other models were the 200-horsepower supercharged unit introduced so successfully last year; the 6-cylinder, 100-horsepower and 4-cylinder, 66-horsepower propulsion engines, and the 15-kilowatt generating set.

An illuminated display unit, 20 feet long and ten feet high, was installed in the Cummins booth to illustrate the operation of the Cummins fuel system, various fuel system and engine parts, and several Cummins Diesel-powered boats.

The new supercharged AMRS-600, like all Cummins Diesels, operates on the 4-cycle principle, has the same four-inch bore and five-inch stroke as the standard Model A units and develops maximum horsepower at 2200 r.p.m. In effect, the HMRS-600 is a refinement of the popular standard Model H engine which has a 4 $\frac{7}{8}$ -inch bore and six-inch stroke. With a few mechanical changes and the supercharging units, this motor's 150 horsepower is boosted to 200 at the same engine speed of 1800 r.p.m. There is no appreciable increase in the weight of the supercharged models over the standard engines.

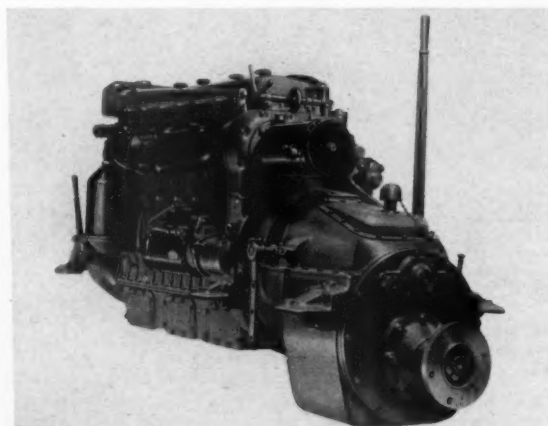
The supercharged Diesels weigh only 10 pounds per horsepower, including the weight of standard equipment. Because they offer a surplus of power for many applications, in actual use the supercharged engines burn no more fuel per hour or knot than the standard models to do a given job.

Particularly noticeable about the supercharged engines is their ability to smoothly pick up a full load with no detonation (pre-ignition) or smoke and their instant cold starting on Diesel fuel without the need of glow plugs, heating coils, small gasoline starting engines or other auxiliaries. The simple electric starter suffices to get them into operation. Peak pressures are kept within practical limits due to the characteristics of the exclusive Cummins injector.

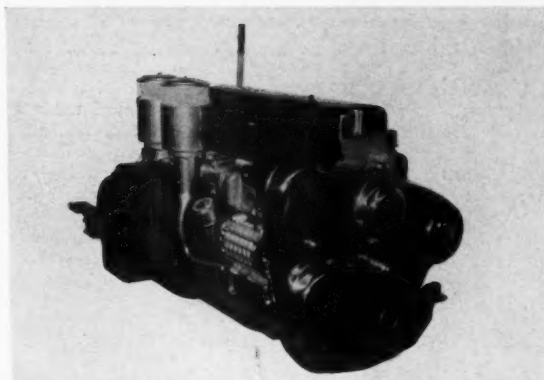
### Hyde Products

Propellers, stuffing boxes, bronze struts by the Hyde Windlass Company of Bath, Me. For years Hyde propellers have been known as dependable wheels of great strength and scientific design which could be counted on absolutely regardless of the service expected of them. Hyde provides a nationwide distribution to solve the propeller service problem. Hyde dealers may be found in every port where boatmen can fill their propeller requirements from well-assorted stocks. Backing up such stocks, nearby distributors are also in a position to supply unusual sizes without delay.

The Hyde trade-mark on every Hyde wheel has always been a mark of quality and the true diameter and pitch are clearly stamped into each wheel. They are constructed so as to hold this pitch even under gruelling service and unusual strains. They resist the action of salt water and are guaranteed not to break in service.



Six-cylinder Gray Marine Diesel with the new high ratio 4.4:1 reduction gear and power take-off. Engine will handle heavy sustained loads with big propellers turning 350-400 rpm.



Supercharger side of the new 135 horsepower marine supercharged Cummins Diesel Model AMRS-600.

### Exide Batteries

The Electric Storage Battery Company of Philadelphia, manufacturers of Exide batteries, had a comprehensive display of products designed for marine use. Not only were batteries shown in their entirety, but single cells, cut away to show the construction, were part of the exhibit. An interesting display was an Exide Marine Floating Battery System connected with the battery to show the operation of the system, and the shaft-driven generator method of charging.

In this system the battery—usually a 16- or 56-cell (32-115 volts, respectively)—is connected at all times to the main bus. During times when the electrical load is light, it absorbs the surplus output of the generator, and automatically and instantaneously feeds back into the main bus when the load exceeds the capacity of the generators. In emergencies, such as generator failure, the battery can carry the entire essential electrical load of the system.

The shaft-driven generator system is particularly applicable to fishing boats. In this system, a generator is driven from the shaft of the main engine. An Exide battery is "floated" or connected to the main bus and acts as a reservoir of current, insuring current at all times regardless of whether the engine is operated at high or low speeds, or is idle. A regulator controls the voltage.

For smaller boats there are 6 and 12-volt Exides of the Marine type. Both Exide and Exide-Ironclad Marine Batteries are available for larger craft—32-volt and 115-volt, up to 200 A.H. capacity.

### Pettit Technicolor Film

An interesting new color film "Painted Ships on a Painted Sea" was shown by the Pettit Paint Company. Included were "shots" of some of the fall activities such as the hauling and storing of boats for the winter in many familiar and well-known yards in various parts of the country.

The company also exhibited a series of wood panels which were treated with various types of Pettit anti-fouling paints prior to a nine month submersion in tropical waters. Students of marine flora and fauna, as well as boat owners, had first hand evidence of the advantages in properly protecting wooden hulls, especially in salt water.

Last but not least, the well-known Pettit Log Book and Guest Register was available again this year in a new and amplified form. It provides a more informative record, but requires no special technical training.

The following were in attendance at the booth for the duration of the Show to welcome visitors from all points: John L. Pettit, John W. Johnson, Frank D. Pettit, Fred C. Becker, and John A. Pettit.

### John G. Alden

John G. Alden, naval architect and yacht broker of Boston, was on hand at the Show again this year with extensive photos, plans, descriptions, models and all other information on Alden designed boats of all types. Also complete details on the popular line of Alden standardized auxiliaries.

### Bosch Injection Equipment

The American Bosch Corporation of Springfield, Mass., exhibited in spaces 89 and 90, and offered marine equipment of the highest standards of precision. Examples of this absolute precision are found in the methods employed today by craftsmen of the company in the manufacture of fuel injection equipment.

Diesel injection equipment depends, among other things, for its correct functioning on the precision of methods applied to the drilling of holes in the spray nozzles. In the Bosch plant microscopic holes are drilled, precisely and uniformly, in diameters of only six-thousandths of an inch. This exact craftsmanship is followed through every step in the fabrication of Bosch injectors.

### New Monel Marine Items

Among the new uses of Monel and nickel shown was a strut and rudder assembly at the booth of the International Nickel Company of New York. This strong, lightweight item, fabricated by electrical welding of Monel sheet and plate, is an interesting departure from the usual cast bronze. A Monel lightweight anchor, which comes in a variety of sizes, also was shown at the exhibit. A specially designed stove, one foot square, was featured, as well as other Monel and nickel products for marine use, such as shafts, wheels, tanks and galley equipment.

### Bearings Under Stress

A testing machine showing bearings operating under actual service conditions, featured the exhibit of Lucius Q. Moffitt, Inc. of Akron, Ohio, distributors of Goodrich Cutless Bearings. Visitors saw what happens when a bearing operates in sandy or other abrasive waters. Another demonstration showed the property of the rubber cutless bearing to absorb vibration, and there was also a full sized stern section of a boat, illustrating how Cutless bearings may replace other types without alteration.

### Story of Kapok Told

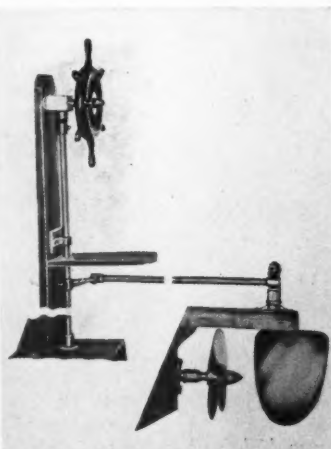
The American Pad and Textile Co. of Greenfield, Ohio, manufacturers of kapok filled life saving equipment, had a novel display at the Motor Boat Show. The background of the exhibit told the story of kapok on the island of Java, with the native cultivation, gathering and marketing of kapok vividly illustrated by an artist familiar with the country. New models of life preservers and floats were included in the exhibit.

### New Columbian Items

Many new and interesting items for marine use were presented by the Columbian Bronze Corporation of Freeport, N. Y. Among these were a streamlined fresh water hull installation cooling system, a visible intake water strainer, fool-proof hydraulic steerer, hydraulic clutch and throttle controls, worm type steerer, and an advanced electric toilet. Also, in addition to its widely known propellers, Columbian exhibited the Dynetic propeller, Columbian propeller puller, and a complete line of marine pumps; fresh water supply systems, shower baths, and single and duplex strainers.

Operated on the familiar opposed ram system the hydraulic steerer is designed for boats up to 60 ft. in length and to eliminate rods, levers and cables. The component parts are a power head that can be installed at any convenient steering position, a double acting rudder-control cylinder and two copper tubes to transmit the hydraulic pressure.

The hydraulic clutch control operates on the same principle as the steerer and will operate a six-inch clutch lever through 45 degrees. The action of the hydraulic throttle is similar except that the hydraulic pressure moves the piston out and a spring returns it to a closed position.



Columbian "fool-proof" hydraulic steerer.

### Radio Telephones

Among the firms exhibiting radio telephones were Marine-phone, Inc.; Harvey Radio Laboratories, Inc.; Karns-White Corp. (Soundview); Western Electric, shown by Smith-Meeker; Jefferson-Travis; Seaphone, shown by Kevin-White; General Communication Co. (Phonemaster); Fisher Research Laboratories.

### Radio Direction Finders

Radio direction finders were exhibited by Bludworth, Inc.; Smith-Meeker (Western Electric); Fisher Research Laboratories; and Gensound Manufacturing Co. (Cad Cod Navigator).

### Propeller Machining

The Michigan Wheel Corporation of Grand Rapids, Mich., demonstrated the actual working of its patented Helical Planing machine, graphically showing the actual machining of the pitch of a propeller blade. Equipment representing the pitch-block method of boring, and the repairing and adjustment of propellers was included in the display together with a complete line of propeller products.

### Model of Cup Defender

A 50 inch model of a typical America's Cup yacht defender featured the display of Edward Smith and Company, paint manufacturers of Long Island City, N. Y. The various paints and finishes used on this yacht were shown by ribbons running from each indicated section of the craft to the correct color panels.

Among paints shown was Chesapeake "Improved", a highly toxic paint based on the old fashioned type copper compounds, highly improved by extensive experience, knowledge, and scientific methods.

Once the contents are stirred, no continual stirring is required. Easy to apply, it gives protection against barnacles, worms, and grass on wood bottoms, commercial craft, rafts and floats.

### Cuprinol Preservatives

Cuprinol, Inc. of Cambridge, Mass., offered its line of preservatives for marine use at its third floor booth. There was a display of rope, fish nets, sail cloth, and wood, all Cuprinol treated and also objects subject to mildew, such as life preservers, awnings and boat covers. The Bureau of Steamboat Inspection Service has accepted Cuprinol for use on life preservers.

### Twin Disc Clutch

The Twin Disc Clutch Company, Racine, Wisconsin, exhibited their marine reverse and reduction gears. These gears are designed for use with internal combustion engines of 40 h.p. up to 235 h.p., with speeds of 600 to 1800 r.p.m.s.

The Model MG-125 for engines up to 140 hp. at 1800 rpm., was shown in operation. Through a plate glass window, one saw the entire inside mechanism . . . how the clutches and gears operate and how the "full power in reverse" feature is secured without any gear shifting.

The Model MG-161 which is designed for engines of 100 hp. at 900 rpm. to 200 hp. at 1800 rpm. was also shown in operation and it was equipped with hydraulic controls, to demonstrate the ease with which even these large size gears operate.

In addition to the booth display, many engine builders such as Atlas, Buda, Caterpillar, Cummins, Gray, International, Mack, National Superior, and Waukesha showed new models with Twin Disc Marine Gears as standard equipment.

The Twin Disc Clutch Company had an elaborate brochure showing in detail the construction and operation of Twin Disc Marine Gears, together with illustrations of the wide variety of boats in which these gears are being used.

## Md., Va., N. C.

### Study Ways to Check Decline in Shad Fisheries

By Edward Bowdoin

**T**HE first definite step designed to check the rapid decline in shad fisheries in Maryland and Virginia was launched by the Federal Government recently. Its first move was to rehabilitate the shad fisheries in the planting of 85,000 fingerling shad at the Harrisonville, Va., hatchery. An additional 50,000 young shad of four to five inches in length are soon to be released from the Bureau of Fisheries' hatchery at Fort Belvoir, Va.

The Virginia Bureau of Fisheries is also experimenting with shad hatched on the James and Chickahominy rivers in an effort to secure greater returns from the planting of young. Instead of releasing the newly hatched fry, which have relatively poor chances of survival, the Bureau is rearing the young shad to a length of four or five inches at selected stations before planting them in coastal rivers.

Recent planting of the approximately 135,000 fingerling shad was carried out with funds provided by Congress. The Bureau of Fisheries also made a scientific study of shad fisheries to determine the causes of the decline of the shad and the recent planting of fingerlings was a means decided upon to check the decline.

While the number of shad released this season is relatively small in comparison with the production of approximately 35,000,000 fry by the Bureau of Fisheries, the work is still in an experimental stage and numerous problems remain to be solved.

It is assumed that the actual return of adult shad three or four years hence from the current year's planting of fingerlings will be much larger than the returns from the release of a greatly increased number of fry.

#### Decline in Shad Catch

Federal fisheries experts have suggested drastic shad conservation measures in Virginia, North Carolina, and Maryland in order to offset a decline of \$800,000 in the annual value of the industry in these three States.

The proposals were made at a conference of commissioners of fisheries of the three States held in Richmond under the chairmanship of G. Walter Mapp, Commissioner for Virginia.

Limits on gear and on fishing days are in effect in the Hudson River in New York, where fishermen are catching more shad than they ever did. "The fishermen of the Hudson have learned that it is more profitable to take 60 percent of a run of five million pounds of shad than to take 90 percent of a hundred thousand pounds as they did 20 years ago," Biologist R. A. Nesbit told the three Commissioners.

#### Maryland Oyster Grounds

**A**NNOUNCEMENT has been made by Edwin Warfield, Chairman of the State Conservation Commission, that two large oyster rocks that have been closed will be opened to dredging about January 22. The rocks are: Great Rock, in Tangier Sound, and Parker's Rock, off the Southern part of Anne Arundel County.

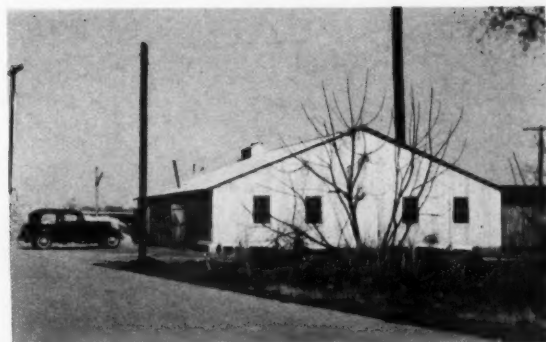
There is little doubt but that the rather strict enforcement of the cull law this season has resulted in a better demand for Maryland oysters. Not for years have as fine shucked oysters been shipped from the State as during this season.

#### More Oysters Handled at Baltimore This Year

The oyster season has been good for the dredgers and catchers, as well as the runboat captains, but not for the packers. The stock of oysters has been larger and the prices in the shell higher than for several years.

The strict enforcement of the cull law has made a better grade of stock, but the market price did not advance with the improved stock.

Baltimore has handled more oysters this season than for years.



Mack Lupton oyster packing plant, New Bern, N. C. Continental cans and sealing machinery are used.

#### Pocomoke Sound a Natural Oyster Bed

One of the best evidences that Pocomoke Sound is a natural area for the catch of spat and the growth and development of fine oysters was presented recently when a ten-quart galvanized tin bucket was brought to Crisfield and displayed.

The bucket, which had evidently fallen overboard from the deck of some boat several years ago, was practically covered on the inside, and partially covered on the outside, with oyster spat, and with oysters that were from one to two years old.

Reports are that in several sections of Pocomoke Sound the same sort of a catch of spat is in evidence, showing that there must be a fair quantity of mature oysters there, the spawn from which attach themselves to almost any kind of object, and upholds the contentions of most seafood packers and oystermen that the planting of shells, to which the spat adhere readily, is the best way to revive and expand the production of oysters in the State.

#### Virginia to Include Fisheries In 1940 State Advertising

**T**HE seafood interests of Tidewater Virginia, beginning in 1940, will receive a part of the sum appropriated annually by the Legislature to advertise the State of Virginia. The suggestion, made by Commissioner Mapp, was approved at a joint meeting held in Richmond under auspices of the State Conservation Commission.

#### "Green-Gilled" Oysters Harmless

Presence of green coloration in the gills of oysters "in no way impairs the oysters as a food and usually indicates that the oysters are fat," Dr. Walter A. Chipman, Jr., Associate Aquatic Biologist in charge of the Marine Biological Laboratory at Yorktown, has informed Commissioner Mapp.

The biologist's explanation was in answer to a question from Mapp regarding the edibility of "green-gill" oysters. Chipman pointed out that the coloration "is brought about by the absorption of a green pigment of small free-living water plants, diatoms, upon which the oysters are feeding. The oyster is herbivorous, and this microscopic plant constitutes its chief item of food."

In France green-gilled oysters are sold as "from Marennes" and demand a higher price than others, Chipman said. A similar absorption of a red pigment of a particular diatom causes oysters to have a bright red gill, which is also harmless.

#### Ground Rent Collections Best in Years

Collections of oyster ground rent by the Commission of Fisheries was the best in years for the period ending Dec. 5. This means that fewer oystermen have had to be assessed the 5 percent penalty for ground rents unpaid on that date. Here is another indication that oystermen are having a prosperous season.

#### Productive Oyster Rock Opened in York

Rock No. 8, off the mouth of Bennett's Creek in York River, has been opened to oystermen by order of the Commissioner of Fisheries. According to advance reports, the rock is well covered with large oysters. As in the case of all public rocks, the cull law applies to all oysters taken there.





On the "Mary Grace" in front of the "Americanized" wheel house: Capt. Murphy, Chief Engineer Habe, Mr. Resevitz, Capt. Ciaramitaro, former skipper of the vessel, and Manuel Terrmote.

## Latest Addition to the New Bedford Fleet

By M. E. Harney

THE 86-foot Gloucester dragger *Mary Grace*, formerly owned by Capt. Benjamin Curcuro, Producers' Fish Co., has been purchased by A. H. Resevitz and Capt. Joshua Murphy of this port. The boat was built three years ago at Rockland, Maine, at a cost of \$35,000. She is powered with a 180 hp. Cooper-Bessemer Diesel engine, and will engage in dragging for the present, with a crew of 9 men.

### New Filleting Plant

The Atlantic Fish Market, with headquarters in Philadelphia, is opening a fish filleting plant in the former location of Kennedy & Co. Mr. Metz, who heads the concern, says that fish will be bought in New Bedford, filleted, iced, and packed, and shipped to Philadelphia. Four men will be employed to do this work.

### Record Trips

Two of the big draggers recently landed and sold large trips of yellow tails and made record trips for their owners and crew: the *Whaling City*, 70,000; *Katherine Saunders*, 90,000. The *Charles S. Ashley*, which almost always takes her trips to New York, had 75,000 lbs. and got 2½¢ for them. Some of the fleet got 3 cents in New Bedford. It has been a good Winter for the draggers, but poor one for the scallopers. Strong winds have laid the fleet up here and in Nantucket.

### "Captain Drum" Brings in Good Mackerel Trip

It was a sight for sore eyes when the seiner *Captain Drum* sailed into port lately. Her holds were loaded with all the mackerel that they could hold, and her decks were swarming with them. It took nearly five hours to unload this catch of 75,000 lbs., caught in three hours about 10 miles South and East of Block Island. This was done in two sets of the nets.

### "Josephine and Mary" Sold

The Gloucester schooner *Josephine and Mary* has been sold to Samuel Shuster of New Bedford, who purchased the craft at a public auction sale conducted by Deputy U. S. Marshall Daniel J. Chapman at Boston.

### "Agda" Has Good Trip of Scallops

The Gloucester dragger *Agda*, Capt. Fay D'Eon, did well on a recent trip of scallops which she landed at New Bedford. She stocked \$2,100 and each of the crew received \$107 for his labors.

### "Beatrice and Ida"

The brand new schooner *Beatrice and Ida*, of New Bedford, Capt. John Witham, paid her first trip to Boston recently, having 47,000 pounds fresh fish. The new dragger, 110 gross tonnage, has already made three fishing trips to New York's Fulton market, and is a proud addition to the dragging fleet.

## Vineyard's Windy Weather Cuts Operations of Small Boat Fleet

By J. C. Allen

WITH Christmas under the forefoot as this log is written up, and the after end of December almost abeam, it seems as if the time for casting up of accounts is at hand. The Wheelhouse Loafer who pilots this column, may gain a distorted view of things from a land-bound anchorage, but there are things to be entered on both sides of the sheet as it seems to us.

The luck in these waters during the past month convinces us more and more that the day of the small-boat fishermen is over. It has breezed just short of a full gale more than half the time and nothing under fifty feet can live on the bearings where the fish lay in these days. As a matter of fact, seventy feet overall, is about as small as a gang can be comfortable aboard of, taking things as they come.

It is a tough thing to see, this winding up of small boat fishing, but it has to come and must be faced. The haul, in general, as hailed by our own fleet, fails to indicate any shortage of fish in bold water. The cod have run the best, on our local ledges, that we have seen them in many a year. The haddock have contained a very small percentage of scrod as compared with other recent years and the various sole seems to be inexhaustable. Blackbacks do fall off in spots, which is a common enough habit with all flatfish of that color. So, as we say, vessel fishing has paid a dividend during December, but the luck in small boats has been trimmed to the bone because of the weather.

### Scallops

Our long-booted gentry, who go down to the sea in sharpies, have been pursuing the bay scallop, about three hundred strong, most of the month. It appears that the mainland beds were badly damaged by the hurricane of a year ago, and that the best supply in this part of the country is on the Vineyard. Our own sets were not top-haul either, for that matter. There was a lack of large bivalves, and the set was scattered more than usual, which may be an advantage in some respects. At all events, the beds promise day wages to the hardy, from now until Spring, providing we don't get ice.

Prices on scallops are quite naturally affected by the scarcity. Peanuts have brought the best prices known to mankind, and the mediums have held more steady on the mark than is usual. Yet, the weather has been poor for scalloping, being too cussed warm. As a result, it seems as if the heft of the catch has gone into the freezers to be held for the sport trade of next July, maybe.

### Eelers Doing Better Than Usual

The sharpie fleet has likewise headed for the eel-ponds, and as we scratch off these items, several tons of eels are waiting to be shipped. Eeling has panned out much better than usual in our brackish ponds. What will happen in the way of prices, be cussed and be blown if any man can tell, but the eels are larger and keep better than they have for years.

### Summing Up

But to arrive at the summing-up process: here we are, inhabiting God's green earth and blue water in the highest state of civilization the world has ever known. We can still say what we like and do as we damned please as long as it doesn't harm anyone else. Although we have just ridden out one of the worst depressions this country ever saw, the majority of our countrymen are eating better and sleeping more comfortably than the rest of the world, and never wake up in the night with a shiver if they hear an airplane motor. Neither is there any gang of hard-boiled humans browsing about with the idea of overhauling a man's home and its contents, looking for evidence of incriminating nature. Such is the set-up in these United States at the launching of the year 1940. In this there is a lot more to be thankful for than most men realize.



"M. P. McDonagh," owned by Greenport Oyster Co., Greenport, N. Y., 73.8 x 20.6 x 6.6, is powered with a 4-cylinder  $9\frac{1}{2}$  x 14 Wolverine Diesel engine, and equipped with a Shipmate range.

## Long Island Scallop Industry Has Brighter Outlook

By C. A. Horton

THE possibility of putting Long Island back on the scallop industry map is "bright," according to reports from the Milford Biological Laboratory, Milford, Conn. It has been suggested by East Hampton baymen to the Laboratory that "brushing" of the bays, that is, placing brush and branches on the bottom to afford the bugs a fastening point for spawning purposes might bring about the desired results; also prevent the wholesale dredging of the bugs. The starfish is perhaps one of the worst menaces to the local scallop and oyster industries. A fight, under the direction of the U. S. Bureau of Fisheries, is underway to exterminate the pest.

### Flanders and Reeves Bays Reopened

The Flanders and Reeves Bays have again been reopened to shell fishermen, except that area lying West of a line running from Broad Meadow Point to the Westerly side of Jacob's Creek.

### Cod Scarce in December

The big run usually starts in January. Cod is one of the most prolific of fishes—70 pound cod are recorded as producing over nine million eggs a season. They spawn in the Fall when the temperature of the water is approximately 40 degrees. The catch of cod out of Sheephead Bay averages around fifty per day. A recent catch produced a 46-pound 13-ounce cod.

### Oysters

The oystermen in all of the Long Island plants report business "fine". The demand is very good and quality excellent. The Great South Bay oyster industry has met with big losses during the European war, as big shipments had been made to England annually.

### Act to Regulate Beam Trawling

Ordinances governing the taking of fish by beam trawlers are to be enforced by Arthur B. Smith of Bay Shore, who has been appointed a special bay constable by action of the Islip Town Board. Mr. Smith's appointment is regarded as a response by the board to a recent request by the Bay Shore Tuna Club for cooperation in regulating the activities of beam trawlers, which the sport fishermen claim are harming fishing in certain sections of Great South Bay.

### Reopen Clam Bed

After having been closed 16 years, clam beds in an area of eight square miles between Great Kills and Pleasant Plains, Staten Island, N. Y., were opened to hardshell clammers on Jan. 1. No soft shell clams or oysters, however, may be taken from the beds.

Leonard L. Sutter, President of the Princes Bay Clam and Oyster Association, announced that the Association welcomed the reopening of the beds as a means of providing a livelihood for between 300 and 350 men and a stimulant to boat building and water front real estate.

## Maine Challenge of the Coast Will be Met by New "Sunbeam"

By Dick Reed

FOR over a third of a century the Maine Sea Coast Mission has been ministering to the people who live on the islands and the remote points along the rocky coast of Maine. They are often in peril, for sunny days of good fishing are followed by fogs and storms and ice. Their little homes are far from stores, schools and churches. Like the Grenfell Mission in Labrador, the "Sunbeam" carries hope and healing. The Pastor, the Doctor and the Red Cross Nurse minister to the souls and the bodies of 1,200 families scattered along more than 1,000 miles of indented coastline from the Isle of Shoals to Eastport.

Continued protection for isolated coastal villages against the dangers of sickness and catastrophe was assured with the launching of the Sea Coast Mission's new "mercy" cruiser. The craft, succeeding to the name of her predecessors as *Sunbeam III*, slid down the ways December 27 and made her trial run January 13.

The new *Sunbeam*, financed by the contributions of philanthropic-minded people, is 72 feet long and is powered with a 230 hp. Superior MRD-8 Diesel engine, with a 3 to 1 reduction gear. Rugged in hull and heavily timbered, with a powerful ice-breaking prow, the craft is built to withstand the shock of severe Winter seas. She is similar to fishermen in design and has five water-tight bulkheads built into the hull. She has the most modern types of auxiliary machinery, including electric generators, winches and pumps, fresh water pressure system, shower baths, and steam-heating boiler. The craft represents an outlay of about \$34,000.

She has a Hyde propeller, Exide batteries, and uses Plymouth rope. She was designed by Tams, Inc., New York, and built by Harry G. Marr, Damariscotta.

### Sardine Market in Healthy Condition

According to James Abernathy, Secretary of the Maine Sardine Packers Association, the official figures show the pack of Maine sardines for the season of 1939 to be 2,171,667 cases. The quality was the highest in years.

The quantity of sardines now remaining in packers' hands is very light, not being over 40% of the quantity usually carried over at the end of the packing season.

On account of the very short pack of the season of 1938, which was only about one-third of normal, the market was entirely bare of Maine sardines when the season started last April. The demand for the sardines, therefore, took the goods as fast as they were packed during the Spring and Summer. Then, in September, the start of the war in Europe caused a heavy demand for Maine sardines, and stocks in packers' hands were almost cleaned up by the beginning of October, and all the sardines now in packers' hands are the few packed from about the middle of October until packing ended in November.

The few sardines on hand will be all cleaned up before the packing season starts about the middle of April.

### Fishery By-Products Becoming Important

Its supply of codfish livers, formerly obtained from England and now shut off because of the war, a chemical manufacturing firm of Myerstown, Pa., would open a processing plant in Maine if a sufficient quantity of raw material could be assured. Sea and Shore Fisheries Commissioner Arthur R. Greenleaf said that officials of the concern had conferred with him several times and that his organization was conducting a survey to ascertain how many livers might be available during an average year. The concern states that it would be willing to pay around three cents a pound for the livers and could use a large amount.

Several other firms confronted with the loss of a European supply of raw marine materials have been looking over the Maine situation. Several years ago a chemical firm from Phil-

adelphia predicted eventual war and opened a kelp processing plant in Rockland for the extraction of algin. Formerly its supply was received from France.

Greenleaf told of an interesting new development in the fisheries by-products field. For several years a Lubec plant has been extracting pearl essence from herring scales. After the lustre was removed the scales were thrown away. This year the concern discovered that glycerine could be extracted profitably from the lustreless scales and produced a considerable quantity.

#### Maine Landings

Maine fish landings held up well during November with fishermen receiving \$215,489 for their fares, according to figures released by Commissioner Greenleaf. Lobsters were the outstanding item with 760,335 pounds of natives bringing \$129,256. Only 27,505 pounds of Canadians were received.

Other leading species were: 36,668 bushels of clams, 27,185 bushels of herring, 70,000 lbs. of flounders, 164,000 lbs. of rose-fish, 159,000 lbs. of cusk, 392,709 lbs. of pollock, 270,000 lbs. of hake, 135,679 lbs. of haddock and 127,870 lbs. of cod. Diggers took 318,550 blood and sandworms.



New lobster plant of H. W. Look, Rockland, Maine.

#### Look's New Lobster Plant

H. W. Look, lobster dealer of Rockland, Maine, has moved to a new modern plant, situated on the waterfront a short distance from his former location. The new plant, which has the most improved lobster handling facilities, including a tank system, is one of the finest on the Coast.

Mr. Look has been connected with the lobster business in various capacities since a young man, and has operated his own business for 20 years. During this time, he has gained a thorough knowledge of the industry, which has enabled him to adopt the most practical methods. Associated with him is his brother, Capt. P. M. Look, who handles the production end of the business.

A specially designed lobster boat or smack is used to collect lobsters from buyers located at strategic points on the Maine Coast, and to bring them in iced crates to Rockland. Here they are carried into the plant by a novel arrangement consisting of a 2 ton capacity incline railway, which runs from the water to the plant. Water transportation of lobsters from producing points is supplemented by truck-haulage in certain areas. The firm's storage capacity in tanks, pounds and cars is 150,000 pounds.

For shipping lobsters, a specially constructed, refrigerated barrel is used which assures shipments of arriving in good condition in all sections of the country. This package is virtually a barrel within a barrel and permits efficient icing. Lobsters packed with seaweed in the center are kept cool without ice contact. Lobster meat is available in 2-pound waxed paper cartons and is especially convenient for quick restaurant service. Selling agencies are maintained in principal large cities.

#### Feyler Filleting Redfish

Feyler, Inc., are now completely moved into their new plant at Rockland, and are packing large quantities of redfish fillets.

## Gloucester Italian Fishermen's Three-Month Strike Settled

MAYOR S. F. Whalen, acting as mediator in a labor dispute among Italian fishermen and the Atlantic Fishermen's Union, settled the dispute to the satisfaction of all parties concerned. The five Italian draggers which were to be sold to out-of-town fishing interests, will not be sold because their owners signed Union agreements, and the Producers' Fish Company, a 20-year-old local fish concern, which was about to liquidate its assets, will continue in business.

The five boats, *Salvatore*, *Santa Maria*, *Jennie and Lucia*, *Marietta and Mary*, and the *St. Theresa*, will proceed fishing after being tied up for three months. Their owners had refused to sign Union contracts, thus causing a strike of some 70 fishermen. The boats will carry 14 men while seining and 9 while dragging.

#### Three New Craft Being Built for Fleet

By the beginning of Summer, Gloucester will have three brand new fishing craft operating, which is particularly good news to offset the past sales of fishing craft from here. Besides the 90-foot dragger being built at Essex for Capt. Tom Benham, two craft are under construction in Maine for local fishermen.

Capt. Tony Linquta, skipper of the dragger *Natale II*, a converted sub-chaser, is having a 90-foot dragger built at Kennebunkport, Maine, by B. F. Warner. Work on laying the keel has already begun. This craft will be launched in June, and will fish out of Gloucester with Capt. Linquta in command. The new craft will be owned by Marco Linquta and his two sons, Louis and Capt. Tony Linquta. The *Natale II* will be sold.

Capt. Jack Barbara of this port, who recently sold the dragger *Antonio* to New Bedford parties, is having an 88-foot dragger built at Thomaston, Maine, which will be ready for launching by June. Shipwright Snow of that port is constructing the craft, having just started work on her.

#### Fishermen Deducting Their One Percent

While the Social Security Administration at Washington is trying to figure out whether fishermen are farmers, and therefore off the Social Security books, owners of fishing vessels have been advised to deduct one percent from the stock of each trip and hold aside the money so that when and if the Administration makes its decision, the owners will be prepared to meet the obligation.

#### "Donald Amirault" High Liner for 1939

The *Donald Amirault*, Capt. Bradford Amirault, was the high liner of all redfishing craft from all ports for 1939. They stocked \$70,000 and each of the crew received \$2,700 for his labors during 1939. They spent the entire year engaged in dragging for redfish.

#### Seiners Again Taking Mackerel

For the third successive year, seiners are catching mackerel in January. Two Gloucester boats, *Gertrude DeCosta*, Capt. Cyril Dyett, and the *Eleanor*, Capt. Frank Foote, reported a total of 37,000 pounds. The fish were caught in the neighborhood of Block Island.

#### Best Gill Net Trip

Congratulations are due Capt. James Parsons and crew in the local gill netter *Elizabeth and James* for the best gill net trip of the year. They had 30,000 pounds of pollock in one day over the holiday week-end.

#### "Funchal" on Her Way South

The local dragger *Funchal*, Capt. Joe Goulart, has made her final trip of the season in the North Atlantic. She is bound South for the Winter to fish out of Virginia ports.

#### Portuguese Fleet Headed South

The Portuguese draggers have been getting ready for Southern dragging. A few of their number have been South for the past two months. The bulk of the fleet left around New Year's.



## Boston To Have Fisheries Educational Course

**B**EGINNING Thursday evening, February 8th, at 7:30 o'clock, Edward H. Cooley, Manager of the Massachusetts Fisheries Association and Chairman of the New England Division, Fishery Advisory Committee of the United States Department of the Interior, will initiate a series of eighty weekly classes in the Gardner Auditorium, State House, Boston, under the auspices of the State Department of Education. This is the first time in the history of the fishing industry that such a Course is being conducted.

The Course will cover the history of the Industry, production and methods of catching fish, up-to-date methods of manufacturing and processing, the modern concept of distribution, advertising and merchandising, and will end with the study of dietetic values and the home care necessary for fishery products.

This Course is intended for those already in the Industry, for those who might wish to become connected with the Industry, for the personnel of retailing and distribution outlets, as well as for hotels, restaurants and homemakers.

The cost of the entire course is \$4.00 and no textbooks are necessary. Registrations will be accepted by mail at the State Education Building, Newbury and Exeter Streets, Boston, the office of the Massachusetts Fisheries Association, Administration Building, Fish Pier, Boston, or at the first meeting of the Class.

### Scroll Presented to Alphen

At a testimonial banquet held in Boston on December 26, in honor of J. Lawrence Alphen, President of General Seafoods Corporation, the Captains of the General Seafoods trawlers presented Mr. Alphen with a scroll, bearing the signature of the Captains, describing their loyalty to the Company and paying tribute to Mr. Alphen's leadership in the industry. The scroll was presented by Captain Patrick Collins, senior skipper of the fleet, which consists of nineteen trawlers. The scroll also contained the signatures of Marine Manager John C. Malcolm, Port Captain Henry Atwood and Port Engineer John W. Christopher. Following are the trawlers in the General Seafoods fleet and their Captains: *Wave*, Carl Iver Carlson; *Ocean*, Eric A. Carlson; *Crest*, Patrick Collins; *Gale*, Martin Pedersen; *Tide*, James Geehan; *Storm*, M. C. Shea; *Surf*, Thor Magnusson; *Squall*, Douglas Schwartz; *Ebb*, Michael Driscoll; *Swell*, Christopher T. Ness; *Flow*, Gremmer Eggston; *Breeze*, Wm. Hanlan; *Breaker*, Iver C. Carlson; *Billow*, Herbert W. Nickerson; *Sea*, Samuel Sorensen; *Foam*, Philip J. Colbert; *Comber*, Harold Picco; *Ripple*, Cyril J. Connors; *Spray*, Augustus Dunsy.

### Henry & Close Has New General Sales Manager

Alfred J. Green has been appointed General Sales Manager of Henry & Close, Inc., 20 Fish Pier, Boston, Mass. He was formerly associated with the Atlantic Quick Freeze Co. of New Bedford in a similar capacity. William Russo is President of Henry & Close, which conducts a general fish and fillet business.

### Baker Moves to 148 Northern Ave.

A. L. Baker, located on Commercial Wharf, Boston, for nearly thirty-five years, has moved to 148 Northern Ave. He handles a complete line of shellfish.

### Symonds Joins Rapp-Huckins

E. A. Symonds, formerly with Fairbanks, Morse & Co., has joined the sales force of Rapp-Huckins Co., Inc., Marine Engine Distributors, North Station Industrial Building, Boston, Mass. Mr. Symonds was associated with Fairbanks, Morse for five years, during which time he served as Service Manager and Manager of the Sales Promotion Department of the Company's Boston office.

### Lamere, Manager of Booth Boston Branch

J. J. Lamere, formerly with the Bay State Fishing Co. and General Seafoods Corp., is now manager of the Booth Fisheries Corp., Boston branch. He replaces Ralph H. Osborn, resigned. Jens P. Bruun, formerly with the Bay State, has replaced James Greig as Booth's Port Engineer.

### Boston Fish Pier Landings for December

(Hailing fares. Figure after name indicates number of trips.)

<i>Adventure</i> (3)	220,000	<i>Magellan</i> (1)	70,000
<i>Adventure II</i> (3)	217,500	<i>Maine</i> (3)	276,000
<i>Alice J. Hathaway</i> (1)	41,000	<i>Maris Stella</i> (3)	217,000
<i>American</i> (2)	142,000	<i>Marjorie Parker</i> (3)	53,500
<i>Angie &amp; Florence</i> (1)	49,000	<i>Mary E. O'Hara</i> (2)	107,000
<i>Angie &amp; Vence</i> (2)	60,600	<i>Mary &amp; Julia</i> (2)	98,000
<i>Arlington</i> (3)	606,000	<i>Mary Jane</i> (1)	82,000
<i>Atlantic</i> (2)	250,000	<i>Natale II</i> (4)	234,100
<i>Beatrice &amp; Ida</i> (1)	47,000	<i>Neptune</i> (3)	320,000
<i>Bettina</i> (2)	90,000	<i>Newfoundland</i> (2)	102,000
<i>Billow</i> (3)	305,000	<i>Newton</i> (2)	208,000
<i>Bittern</i> (1)	189,000	<i>Noreen</i> (1)	39,000
<i>Boston</i> (3)	282,000	<i>North Star</i> (2)	113,800
<i>Boston College</i> (1)	99,000	<i>Notre Dame</i> (3)	396,000
<i>Breaker</i> (2)	221,000	<i>Ocean</i> (2)	386,000
<i>Breeze</i> (2)	238,000	<i>Olympia</i> (3)	105,300
<i>Brookline</i> (4)	360,700	<i>Plymouth</i> (3)	314,000
<i>Cambridge</i> (3)	374,000	<i>Pollyanna</i> (1)	64,000
<i>Catherine Graffeo</i> (1)	67,500	<i>Quincy</i> (4)	327,000
<i>Catherine Saunders</i> (1)	50,000	<i>Rainbow</i> (2)	86,000
<i>Chas. M. Fauci III</i> (5)	41,100	<i>Raymonde</i> (2)	97,000
<i>Comber</i> (2)	296,000	<i>Ripple</i> (3)	452,000
<i>Crest</i> (2)	200,000	<i>Rita B.</i> (3)	179,500
<i>Delaware</i> (3)	307,000	<i>Rosalie</i> (1)	53,500
<i>Dorchester</i> (4)	318,000	<i>Rose Marie</i> (1)	55,000
<i>Ebb</i> (2)	282,000	<i>Saint Joseph</i> (4)	145,000
<i>Edith L. Boudreau</i> (2)	154,000	<i>St. Rosalie</i> (1)	61,500
<i>Fabia</i> (3)	400,000	<i>Salvatore &amp; Rosalie</i> (1)	48,000
<i>Famiglia</i> (3)	50,400	<i>Sea</i> (2)	245,000
<i>Flow</i> (2)	369,000	<i>Serafina II</i> (1)	44,000
<i>Foam</i> (2)	211,000	<i>Shamrock</i> (2)	132,000
<i>Fordham</i> (3)	371,000	<i>Shawmut</i> (3)	235,000
<i>Frances C. Denehy</i> (1)	51,500	<i>Spray</i> (2)	276,000
<i>Funchal</i> (2)	76,000	<i>Squall</i> (1)	115,000
<i>Gale</i> (3)	415,000	<i>Storm</i> (2)	292,000
<i>Georgetown</i> (3)	299,000	<i>Surf</i> (2)	406,000
<i>Ger'de L. Thebaud</i> (1)	68,000	<i>Swell</i> (3)	500,000
<i>Gossoon</i> (3)	192,000	<i>Thomas Whalen</i> (3)	252,000
<i>Grand Marshall</i> (2)	90,000	<i>Tide</i> (2)	260,000
<i>Hekla</i> (2)	254,000	<i>Trimount</i> (2)	122,000
<i>Helen M.</i> (3)	81,500	<i>Triton</i> (4)	446,000
<i>Holy Cross</i> (3)	339,000	<i>Vandal</i> (2)	119,000
<i>Illinois</i> (3)	292,000	<i>Venture II</i> (2)	110,500
<i>J. M. Marshall</i> (2)	135,000	<i>Villanova</i> (3)	267,000
<i>Jeanne d'Arc</i> (3)	435,000	<i>Wave</i> (3)	543,000
<i>Josephine &amp; Marg't</i> (2)	114,000	<i>Whaling City</i> (2)	85,000
<i>Julia &amp; Eleanor</i> (2)	114,000	<i>Wm. J. O'Brien</i> (3)	313,000
<i>Killarney</i> (2)	150,000	<i>Wm. L. Putnam</i> (3)	192,000
<i>Kittiwake</i> (2)	308,000	<i>Winchester</i> (4)	359,000
<i>Lark</i> (2)	150,000	<i>Winthrop</i> (3)	319,000
<i>Lark</i> (3)	399,000	<i>Yankee</i> (3)	172,000
<i>Leretha</i> (1)	46,000		

### Receipts at Boston Fish Pier

Receipts of fresh fish at the Boston Pier the week ending December 9 were over a million and half pounds ahead of the corresponding week of 1938. On Monday, December 4, receipts were 2,861,900 pounds from 52 boats and comprised one of the biggest days of the year. The record day for this year was May 4, 1939, when 44 arrivals brought in 2,929,000 pounds. For the week ending December 21, there were 7,196,600 pounds of fresh fish landed by 153 arrivals at the Boston Fish Pier, almost two million pounds ahead of the corresponding week of 1938. In the same week last year, 146 arrivals brought in 5,365,100 pounds.

### On the Ways

The following fishing vessels were on the ways at the Atlantic Works of the Bethlehem Shipbuilding Corp., Boston, during the month of December: *Bittern*, *Brookline*, *Cormorant*, *Delaware*, *Kittiwake*, *Thos. Whalen*, *Venture II*, and *Winchester*.

### Rule on Smelt

With frozen smelt now coming to the Boston market in goodly quantity from Canada, the dealers at Boston have been

advised of new regulations governing inspection and grading of New Brunswick smelts. When packed in boxes for market, the fish are to be graded for size only, as follows: Extras, seven inches and up; No. 1,  $5\frac{3}{4}$  to 7 inches; mediums,  $4\frac{1}{2}$  to  $5\frac{3}{4}$  inches; and small, under  $4\frac{1}{2}$  inches. Measurement will be from the extremity of the head to the end of the backbone at the round of the tail. A tolerance of five percent is allowed each grade, but no smelt below one-half inch of the minimum size will be included in this tolerance.

#### "Cormorant" Changes Hands

The *Cormorant*, which was purchased recently from Ocean Trawling Co., Boston, by Trawler *Cormorant*, Inc., P. J. O'Hara, President, Isadore Bromfield, Treasurer, is being completely renovated at the Boston Fish Pier. The vessel's superstructure is being completely stream-lined and a new Fairbanks-Morse engine is being installed. This engine is a Model 37C14, 690 hp., 6 cylinder, 2 cycle, 300 rpm., 14 in. bore, 17 in. stroke, direct reversing.

#### New Fairbanks-Morse for "Frances C. Denehy"

The *Frances C. Denehy*, Capt. Foley, owned by Fauci Oil Co., Boston, Mass., was recently equipped with a new Fairbanks-Morse Diesel, Model 35E10, 320 hp., 8 cylinder, 2 cycle, 400 rpm., 10 in. bore,  $12\frac{1}{2}$  in. stroke, direct reversing.

#### Capt. John M. Atwood

Capt. John M. Atwood, 64 years, old-time market fisherman out of Gloucester and Boston, died recently at his home in Everett. The late Capt. Atwood was skipper of the ill-fated *Ingomar*, when that 32-year-old Gloucester schooner ran aground on Plum Island, in the fog in February, 1936; the skipper and his crew of 20 men rowed ashore. Among his many commands was the Gloucester schooner *Dawn*, which was built for him and which is now halibuting under Capt. Archie A. McLeod.

## Florida Fisheries

**I**NCREASED activity along the San Sebastian River already gives the sign that the Winter shrimp season is on its way.

Bushels of fancy jumbo shrimp are moving Northward and shrimp dealers are predicting a banner year.

Shrimp dealers report that boats have been returning to the San Sebastian docks with catches of shrimp ranging from 100 to 250 bushels of fancy jumbo shrimp, which is considered good for this time of the year. Prices in Northern markets are reported as fair this year.

A late improvement to the local fishing fleet is the installation of short wave radio sets on a number of the shrimp boats. John Marvin was the first to introduce radio-equipped boats, and the venture proved so successful that a number of other shrimp dealers followed it.

#### Fire In Oyster Plant at St. Augustine

The oyster factory on the West side of the San Sebastian River, operated by S. S. Goffin of Jacksonville, was swept by flames on January 2. The large wooden structure was almost totally destroyed and considerable damage was done to the machinery.

#### New Shark Fishing Plant at New Pass Bridge

Harold Rathbun and Ralph Wrigley, owners of a bait house on the approach to New Pass Bridge, Sarasota, Fla., are developing as a sideline an interesting and profitable shark fishing industry.

#### Good Catches

From Apalachicola, Fla., comes report of a continuous market for fresh shrimp, with an increase in catches of large jumbo size being brought from the Gulf.

The *Angeles*, owned by Demo George, after a slump of almost two years, picked up a pay load of 21,000 pounds.

Tarpon Springs fishermen also had large catches of mackerel, sea trout, mullet, bluefish, and flounders.

#### Oyster Production Coming Back

Oyster production in Franklin County is coming back, according to R. L. Dowling, Supervisor of Conservation.

Field agents, supervising for Mr. Dowling, say the demand for Florida oysters is increasing so that it is becoming difficult to fill orders. There seems to be no danger of over production, while prices remain good.

## Gulf Shrimpers Seek Protection Against Imports from Japan

**S**HRIMP dealers in Texas are now fighting for a tariff against shrimp imported into this country as a result of Japanese shrimpers taking California markets away from the Texas interests.

Japan, which used to buy frozen Texas shrimp, has recently had shrimp boats operating off the Mexican coast. These boats have not only provided shrimp for Japan, but have been providing shrimp for California markets formerly belonging to Texas.

Major shrimp producers at Port Lacava and other points along the Gulf Coast are interested in measures that would curtail the competition given the domestic shrimp industry by imports.

#### New Oyster and Shrimp Plant

The Morgan City Packing Company's newest plant, located in Franklin, at the site of the former Franklin Seafoods Company, began operations December 21st.

The new seafood plant has an operating capacity of 600 barrels daily, with a fleet of fifteen boats supplying the oysters. When in full operation, the plant will employ two hundred people. It will be in operation until May, during the oyster and shrimp season, and is one of several operated by the Morgan City Packing Company, others being located in Berwick, Morgan City, Golden Meadows, Westwego and the main plant at Houma.

#### Gulfport Canning Plant

The Humphrey's Canning Company has commenced operations at its leased plant on the Municipal Pier, Gulfport, with a force of about 75 persons, which number will be increased until approximately 200 are employed. The plant is now canning oysters, but will later also can shrimp. J. M. Humphrey, in charge of the plant, states that a plentiful supply of both oysters and shrimp can be secured.

#### Record Shrimp Catch

What is believed to be the record catch of the season for a Morgan City trawler was brought in by the *Gulf Trawler*, when she hove in with 105  $2\frac{5}{8}$  barrels of fine shrimp. A number of boats have been reported with large catches of from 90 to 100 barrels, and one or two just topping the 100 mark, but the *Gulf Trawler's* catch appears to be the "tops." The *Gulf Trawler* is owned by Capt. Ted Anderson, one of the pioneers in the jumbo shrimp fishing at Morgan City.

#### New Shrimp Weight Rules Adopted

The Mississippi Seafood Commission has adopted an ordinance making it unlawful to catch shrimp that do not weigh at least one pound to each 40 raw shrimp. This will not prohibit fishermen using smaller shrimp. It is held that the catching of small shrimp is injurious to the future of the industry.

#### Dunbar-Dukate Opens Cannery at Pass Christian

The Dunbar-Dukate cannery at Pass Christian started full time operation on January 13th, after a successful "shake down" run on the tenth. Capt. Pete Cox brought in the dredgeboat *Ohio* loaded with Louisiana oysters of fine quality. It was announced that the *Ohio* will be followed by other dredgeboats of the Dunbar-Dukate fleet. It was also reported that the cannery has put in an additional force of carpenters to build a fleet of tonging skiffs which will be sold or rented at nominal prices.

#### First Market Reports from New Orleans Jan. 5

Daily fishery products reports from the new U. S. Bureau of Fisheries office in New Orleans have made their appearance with the issuance of the first report on January 5.

The new report covers production and movement of seafoods in Alabama, Louisiana, Mississippi, and Texas, together with other important relative information, such as prices on certain markets, marine and river forecasts, a shrimp pack report, and cold storage movements and holdings for Gulf State warehouses.

## Great Lakes

### Wisconsin Governor Takes Hand in Mesh Ruling

WITH the pros and cons getting nowhere in the controversy regarding the new ruling as to size of mesh in commercial fishing nets, Governor Heil has taken a hand to alleviate the situation. His action was taken after Lake Michigan fishermen had left their old nets, the kind with mesh now banned if the Wisconsin Conservation Commission ruling is to be put into force, and the fishermen advised the nets would not be lifted, pending an appeal to the Governor.

At Two Rivers, Wisconsin, on Lake Michigan, the city manager, John J. Donnelly, advised that the Governor had told him during the holiday season that the commercial fishermen could go ahead and use the old nets, and that he, the Governor, would see what could be done to get the Commission to reconsider the matter of the net mesh ruling, intending to call a special meeting shortly after the first of the year.

Lake fishermen, in appealing to the Governor, said the new order would ruin their business. Shortly before the Governor offered to do something about the new order, one fishing firm, fishing off Kewaunee, in Lake Michigan, had its nets seized by a State official, who said he had no recourse except to enforce the new ruling of the Commission. The nets seized are said to be valued at about \$500 and the fish in the seized nets were claimed to be worth \$200. The seizure was made after the game warden had found that the nets used had mesh measuring  $2\frac{3}{8}$  inches instead of  $2\frac{1}{2}$  inches.

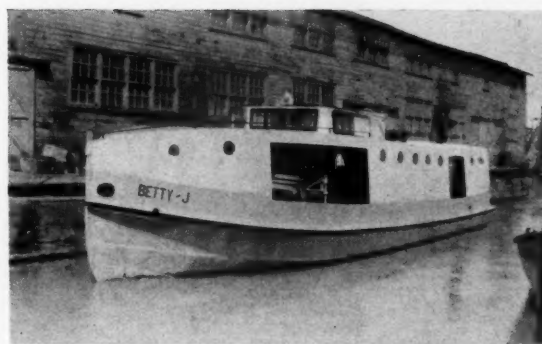
The new ruling was intended to apply only to commercial fishing on Lake Michigan proper, not to Green Bay, that large body of water projecting into Wisconsin from the lake. On the Bay commercial fishermen are protected by an order from the court, which temporarily restrains the Conservation Commission from enforcing any new ruling as to the size of mesh in nets used in this body of water, in which herring are the main catches, as against chubs and other small fish caught in Lake Michigan.

The date for the special meeting of the Commission is not known at this time, but in the meantime fishermen on the lake expect to have an armistice until a final decision is reached.

#### Herring Fishermen Report Fair 1939 Season

With the closing of the herring fishing season on Lake Superior and Green Bay, smaller catches were reported by most fishermen, due to a shortened season, the yield of herring, amounting to hundreds of tons, was excellent in the opinion of Wisconsin's food inspectors detailed to enforce sanitation requirements and speed the delivery of fish from the time they are caught to the time when placed under refrigeration.

In the Green Bay area, Department food inspectors watched herring fishing operations at the city of Green Bay, Big Sausage, Pensaukee, Oconto and Marinette. In this region the run



"Betty J", owned by Barcelona Fish Co., Erie, Pa., and equipped with a 6-cylinder 100 hp. engine. Michigan propeller and Crossley net puller.

was light, occurring principally in the upper portion of the bay.

About 67 fishing boats, employing about 250 men, operated on Lake Superior during the herring season of 1939. These fishermen reported that the run was normal. About 400 men and women also were employed at fish packing houses in the Lake Superior area during the past season.

All boats, fish houses and fish docks were inspected regularly during the season. Inspectors reported that the weather was of great assistance to the herring fishermen during the 1939 season, facilitating the prompt lifting of nets.

#### Fishermen Ask for Net Loans

The commercial fishermen of St. Ignace, Mich., who suffered unusually large losses of twine early last Spring because of violent storms and abnormal ice conditions, have, through the cooperation of U. S. Senator Prentiss Brown and Representative Fred Bradley, placed their appeal for assistance before the proper Federal agency at Washington and a representative of the Disaster Loan Corporation has been ordered to investigate the condition of the St. Ignace fisheries and arrange for the necessary loans. It is estimated that almost \$30,000 worth of nets were lost in the Straits of Mackinac last Spring.

#### Michigan Bans Fishing Permits

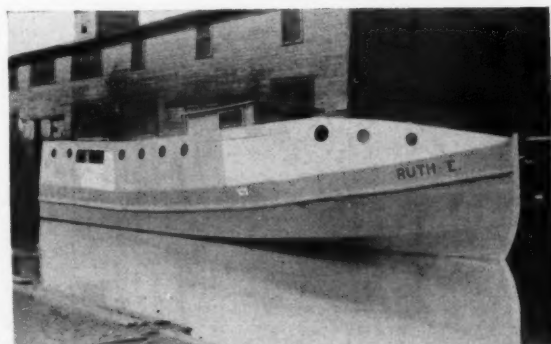
An opinion from Michigan's Attorney-General, Thomas Reed, brought a halt to the issuance of commercial fishing licenses to residents of Wisconsin, Indiana and Ohio.

The Michigan Department has been issuing non-resident licenses to Wisconsin, Indiana and Ohio producers who have gear that is legal for use in Michigan waters. The law provides that fishermen from neighboring states are entitled to non-resident licenses for operation in Michigan's waters of the Great Lakes when the laws of their home state conform to those of Michigan. In the past, the Michigan Conservation Department has taken the attitude that Wisconsin, Indiana and Ohio laws were near enough like the Michigan regulations to permit the issuance of non-resident licenses. Attorney-General Reed now claims that the substantial conformity of the fish laws of the three neighboring states to those of Michigan is not enough and that according to the law absolute compliance is required.

Early in November, Gov. Heil of Wisconsin signed an order that brought the Wisconsin commercial fishing regulations into almost complete accord with the Michigan law; but in spite of this latest action there is still a difference between the laws of the two states that make it impossible for Michigan to issue non-resident licenses to Wisconsin producers.

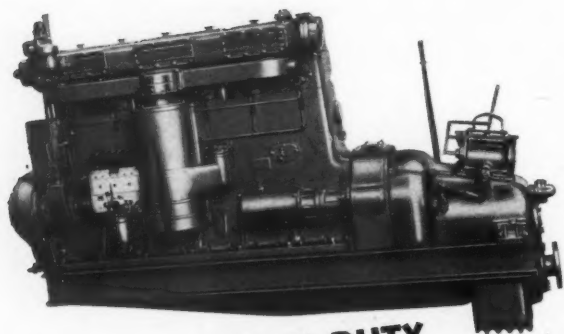
#### Cornucopia Herring Season Reaches New High

Cornucopia commercial fishermen reported a herring catch this Fall of 1,300,000 pounds, which is about 250,000 pounds above the previous record year of 1936. Two new packing sheds were erected to accommodate the season's catch by the Jones Brothers and H. J. Ehlers, respectively.



"Ruth E", owned by Barcelona Fish Co., Erie, Pa., equipped with a Gray 6-105 Hyde propeller and Crossley net lifter.





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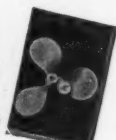
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## Crafts with Buda

**R.** K. Mangan, Vice President of The Buda Company of Harvey, Illinois has announced the appointment of L. H. Crafts as Sales Engineer in charge of marine engine sales in the Eastern territory.

Mr. Crafts was for several years employed by The Lycoming Manufacturing Company and more recently was Sales Manager of their Marine Division. Prior to his association with Lycoming, and after leaving the University of Pennsylvania, Mr. Crafts was in the U. S. Navy, and spent several years in all types of Sales and Engineering work.

Mr. Crafts will be glad to see all his friends at his new headquarters—The Buda Company office and store at 253 West 64th St., New York.



L. H. Crafts

## Shrimp Packing Operations

**D**URING the period from July 1 to November 25 the 40 canneries packing shrimp in the Gulf and South Atlantic States under the supervision of the Seafood Inspection Service of the Food and Drug Administration packed 942,000 standard cases as compared, for similar periods, with 860,000 cases in 1938, 1,027,000 cases in 1937, and 696,000 cases in 1936, according to the Jacksonville Fishery Market News office. The average season's pack recently has approximated 1 million cases. Of the current total, approximately 738,000 cases were canned according to the standard wet pack, 163,000 cases according to the standard dry pack, and the balance in odd sizes and in glass. Almost 51 million pounds of shrimp were required for the pack to November 25. The canneries averaged 55 operating days since July 1.

## New Radiotelephone Stations

**R**ADIOTELEPHONE service for vessels approaching or leaving the Cape Cod Canal was inaugurated when the United States Government opened three new stations for service. The Stations are WZBA, situated in the dispatcher's office at Buzzards Bay; auxiliary station WZBS, at the Sandwich entrance to the canal, and auxiliary station WZBW at the Wing Neck, or Vineyard Sound entrance.

## The Book of Fishes

**T**HIS new Book of Fishes is written by recognized authorities on marine life; its eleven chapters are not only rich in reading pleasure, but invaluable also for reference and identification of innumerable species.

Among the 372 pages are 102 informative biographies of the better known food and sport fishes of the Atlantic Coast, the Midwest, and Pacific Coastal waters, both salt and fresh; 105 pages of full-color plates, showing and easily identifying in lifelike hues 231 species of salt- and fresh-water fish and other forms of marine life; and 162 action photographs of various fish notables, from the lordly tarpon, fighting sailfish, marlin, and swordfish to the smaller of river, brook, and lake.

The color reproductions alone represent an original expenditure of more than \$100,000. Were the Book of Fishes published for financial profit and were not the first cost of paintings and engraved color plates charged to the *National Geographic Magazine* in which they first appeared, the price would be prohibitive. In accordance with its educational policy The Society makes this unique volume available at \$3.50, in U. S. and Possessions; elsewhere, \$3.75. Postage is prepaid.

The work is published in a reasonably limited edition, and will not be sold through bookstores or agents. It is available only from the National Geographic Society, Washington, D.C.

### R. C. Norberg, Exide President

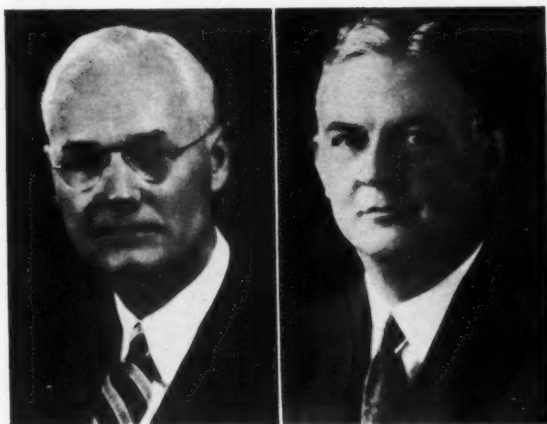
**A**T a recent meeting of the Board of Directors of The Electric Storage Battery Company, manufacturers of Exide batteries, John R. Williams, associated with the Company for the past 45 years, announced his retirement as President. R. C. Norberg, Vice-President and General Manager, was elected President and General Manager.

#### Frank T. Kalas, Vice-President

Frank T. Kalas, General Sales Manager, was elected Third Vice-President.

Starting with the Company at the bottom of the ladder, Mr. Kalas soon earned promotion and served as a salesman, Washington Branch Manager, District Manager, Assistant General Sales Manager and General Sales Manager.

Mr. Kalas has had a long and varied experience in all fields of storage battery application, and will direct the sales activities of the Company as Vice-President and General Sales Manager.



R. C. Norberg

Frank T. Kalas

### "Pelican" to Continue Shrimp Survey

**T**HE Bureau of Fisheries will continue its exhaustive survey to ascertain more definite information regarding the habits of the shrimp, by starting operations at once from Fort Pierce, Fla., to Cape Hatteras, according to W. W. Anderson, assistant aquatic biologist of the Bureau. He will make his headquarters in Brunswick, Georgia, that town also being headquarters for the Bureau's boat *Pelican*.

The *Pelican* has been used in similar work for the past two years along the Gulf Coast; is 75 feet in length and well equipped for that type of work and investigation. Starting at Fort Pierce the *Pelican* will make zig-zag drags from the shore line seaward until 100 fathoms of water is reached then returning toward the shore line, although the boat carries a mile steel cable, and drags could be made in much deeper water. The drags will each last for thirty minutes and a complete record will be kept of all shrimp and fish caught in the different depths of water.

The *Pelican* sailed from Gulfport, Miss., on January 3 to proceed directly to Fort Pierce and start immediately on the Northward trip, toward Cape Hatteras, with Edward L. Raymond as captain, and the crew consisting of seven men. The trip is expected to take about four or five months as each drag from the shore line to 100 fathoms of water will be about fifty miles; however, much valuable information is expected to be gleaned to add to the information that has been secured by the Bureau in the past. Although most of the shrimps are caught in much shallower water than 100 fathoms, investigation has indicated that they also run in much deeper water.

Keen interest of the prawn fishermen will follow the investigations of the scientific survey conducted by the Bureau of Fisheries; these men who follow the run of the shrimp having been anxious to lend a helping hand to aid the investigations.

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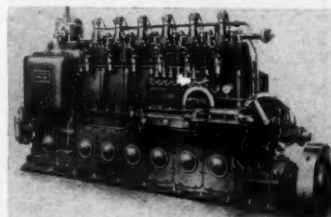
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RICHMOND, VA.  
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## New Brunswick Sardine Fishermen Continue To Profit Through December

By C. A. Dixon

**A**LL December, with the exception of the Christmas holidays, the Canadian sardine factories continued to pack fish after the Maine plants were closed on November 30th. Herring were caught in fairly good quantities at the Wolves Islands, a group situated well offshore in the Bay of Fundy from the Southern New Brunswick coast. It is here that fishermen equipped with large seines get good quantities of sardines every Fall and Winter if the weather is not too severe. Others, not so equipped to capture large hauls of fish, get smaller quantities by the use of torches and dipnets. This method of fishing is known as "driving." A lot of money was made at the Wolves and along Charlotte County mainland shores last Winter, and it has been hoped that this would be duplicated this Winter.

Future prospects for the sardine industry were never so bright as they are now. The fact that Connors Bros., Ltd., made recent announcement of a record pack in 1939 of more than 500,000 cases of fish will substantiate this statement. Not only has the Canadian pack gone over the top, but the Maine pack also, and weimen and boatmen and factory laborers feel optimistic regarding the 1940 season. Never before have weimen ordered or have had delivered weir building material for Spring activities, as has been the case at Grand Manan long before Christmas. Several cargoes of building material were landed at different ports on the island and orders for other necessary products were placed early, too. At no time during the 1939 season did the supply of fish exceed the demand, despite the fact that a lot of fish were caught and that between two and a half and three million cases of canned sardines were packed in Maine and New Brunswick. It is encouraging to note that sales of sardine herring from first hands made by Maine and New Brunswick fishermen are approaching an annual total value to the fishermen of close to \$1,000,000—a tidy sum for those who earn a livelihood from the use of in-shore traps and seines.

### Trawl Fishermen Shift to Outside Waters

With the advent of the New Year, trawl fishermen in Eastern Maine and Southern New Brunswick waters shifted their production activities from the St. Andrews Bay region to that "outside" in the waters of the North Channel or farther down the coast to the Westward of Quoddy Head. The fish inside were much smaller in size this year than last, but for a while they seemed to be quite numerous. The school did not pan out, however, and fishermen were forced to go farther afield for their fares. Prices have been satisfactory and the demand good in Eastport, Lubec, Cutler, and other places. Campobello fishermen continue to sell their catches in Eastport.

### Smaller Packages of Herring Gain Favor

With considerable quantities of herring of larger size reported as being available at the Wolves Island and Grand Manan, it is expected that sales of these to Maine buyers will increase as time goes on. Some lots of good stringers were bought by Lubec parties in December. At Grand Manan orders from Lubec and Eastport for boneless fish in larger sized boxes were received and filled promptly. The Maine firms repack these in retail packages, it is understood, and it is reported that the smaller packages of boneless, cellophane wrapped, are receiving very favorable patronage. The larger boxes from which the smaller are put up contain 30 pounds. For years ten-pound boxes of boneless smoked herring have held the spotlight, but now it seems that these will be superseded by packages containing one quarter pound or less for individual requirements, although they probably will be packed in boxes of various sizes for retailers or jobbers.

### New Scallop Bed Located

Of interest to many is the announcement that the Zoarcas, Capt. Arthur Calder, of the St. Andrews, N. B., branch of the Fisheries Research Board of Canada, has located a new scallop



## Lunenburg

### "Student Prince" Christening Witnessed by Large Gathering

By H. R. Arenburg

**I**N the presence of over five hundred people, the freighter *Student Prince*, largest craft ever to have been constructed in the shipyards of Smith and Rhuland, slid down the ways and into the waters of Lunenburg Harbor. The craft glided slowly down the launching ways to the accompaniment of blasts on the whistles from the fishing schooners in the harbor. As her bows plunged into the waters of the bay, she was christened *Student Prince* by Walter Sweeny, the eleven-year-old son of Lawrence Sweeny, the owner of the new craft. This is the 183rd craft launched from the famous shipyards of Smith & Rhuland during the 38 years they have been in operation.

The *Student Prince* measures 165 ft. over all, with a 30 ft. beam and depth of 12 ft. She will form the twelfth unit in the Sweeny line of freighters, operating out of the port of Yarmouth.

The new craft will be powered by a 300 hp. Fairbanks-Morse Diesel. This engine, which weighs over 22 tons, arrived at Beloit, Wis., about a month before the freighter was launched. After being launched, the *Student Prince* was taken to the railway wharf, where the work of transferring the engine from the railway cars was undertaken by Paul Myra and his staff of riggers. The moving of so large a piece of machinery was quite a feat for Rigger Myra, but was carried out satisfactorily, after which his rigging crew proceeded to rig the freighter and fit her out for her operations in the freighting service.

#### Lunenburg Sea Products Have New Ice Plant

The Lunenburg Sea Products, Inc., have added a new building to their plant for the additional storage of ice. The new building is not quite so large as that already in use by the Company for ice storage. It has a capacity of 2,200 tons, and in size is 60 ft. square and is built on the waterfront. This is the latest of a number of improvements and additions made to the plant during the past year.

#### Landings

Practically all the Lunenburg fishermen were in port and laid up over the Christmas holidays. During the month, the following were included among the fish landed in the port of Lunenburg.

Sch. *Jean and Shirley*, Capt. Lawrence Wharton, 125,000 lbs.  
Sch. *Douglas and Robert*, Capt. Calvin Tanner, 140,000 lbs.  
Sch. *Howard Donald*, Capt. Guy Tanner, 115,000 lbs.  
Sch. *Marguerite B. Tanner*, Capt. Jos. Wentzell, 80,000 lbs.  
Sch. *Marshall Frank*, Capt. Frank Risser, 60,000 lbs.  
Sch. *R. B. Bennett*, Capt. Elbourne Demone, 55,000 lbs.  
Sch. *Fairmorse*, Capt. Napean Crouse, 55,000 lbs.  
Sch. *Muriel Isabel*, Capt. Walter Crouse, 20,000 lbs.  
Sch. *Frances Rowe*, Capt. Blades, 25,000 lbs.  
Sch. *Marion and Elsie*, 25,000 lbs.

The two latter schooners are units in the Lockeport fleet, and have been fishing out of Lunenburg during the harbor trouble of their home port, which caused the shut-down of the fish plants there.

#### Schooners Fishing Out of Halifax

The following fishing schooners were among those operating out of the port of Halifax during the past month: *Harry W. Adams*, Capt. Arnold Parks; *Pasadena II*, Capt. Cecil Walters; *Ethel Petite*, Capt. Evans; *Irene Mary*, Capt. Leo Corkum; *Haligonian*, Capt. Daniel Mosher; *Cachelot III*, Capt. Wilson Berringer; *E. F. Zwicker* and *Julie Opp*. One of the trips landed by the *Pasadena II* was 65,000 pounds.

bed in the St. Andrews Bay region near L'Etete Passage. Only one boat, that of the Pendleton brothers of Deer Island, is engaged in scalloping at the present time, but others may join in the work of dragging the luscious bivalves from the bottom of the sea.

## Trawler Repairs ... BY BETHLEHEM



View of Atlantic Yard, East Boston

Bethlehem maintains two modern ship-repair yards, the Atlantic Yard and the Simpson Yard, on Boston Harbor. Both have unexcelled facilities for the repairing and reconditioning of trawlers. In addition, Bethlehem's Fore River Yard is fully equipped to build modern Diesel fishing vessels.



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## FLAKE SIZE CHANGED AT WILL

Turn a crank on a new "500-Line"  
Creasey Ice Breaker and change the  
size of flakes while the machine is  
running. Better size-control than  
ever before plus all the old reliabil-  
ity that made them say "A Creasey  
Never Wears Out." New Bulletin  
113C shows sizes and net prices of  
models up to 50 tons per hour.  
Write for your copy.

### THE NEW CREASEY DOES IT



**GIFFORD WOOD COMPANY**  
HUDSON, N. Y.

**CREASEY ICE BREAKERS**

## Fulton Market Wholesale Prices

Species	Dec. 1-9	Dec. 10-16	Dec. 17-18	Dec. 24-31
Alewives	.00 1/2-.01	.01-.01	...	...
Bluefish	.10-.23	.06-.12 1/2	.06-.12	.07-.20
Butterfish	.03-.15	.04-.12 1/2	.01-.06	.09-.12 1/2
Codfish, steak	.05-.10	.05-.12	.06-.12	.09-.18
Codfish, market	.02-.08	.03-.06	.04-.06 1/2	.03 1/2-.10
Croakers	.02-.05	.02-.03 1/2	.03-.05	...
Eels	.06-.18	.05-.13 1/2	.03-.20	...
Flounders	.01 1/2-.11	.02-.14	.03-.12 1/2	.06-.14
Fluke	.12-.15	.05-.12	.04-.13	...
Haddock	.01 1/2-.07	.02 1/2-.05 1/2	.02-.07	.03 1/2-.09
Hake	.05-.07	.05 1/2-.07	.05 1/2-.06 1/2	...
Halibut	.13-.16	.14-.16	.13 1/2-.16	...
Jewfish	.12 1/2-.12 1/2	.09-.11	.10-.12	.11-.12
King Mackerel	.11-.16	.06-.18	.04 1/2-.06	.06-.09
Kingfish	.02-.08	.02 1/2-.10	.02 1/2-.07	...
Mackerel	.05 1/2-.16	.04-.15	...	...
Mullet	.02 1/2-.09	.04 1/2-.09	.04-.11	...
Pollock	.03 1/2-.04 1/2	.02-.04 1/2	.03-.05	.03 1/2-.06
Pompano	...	.40-.55	...	.40-.48
Salmon, Pacific	.16-.18	.18-.18	...	.17-.18
Scup	.06-.06 1/2	.06-.06	...	.02 1/2-.03
Sea bass	.03 1/2-.14	.05-.11	.06-.16	.02 1/2-.10
Sea trout, gray	.05-.07	.07-.07	.05-.06	...
Sea trout, spotted	.08-.16	.08-.16	.08-.16	...
Shad	.05-.08	.04-.18	.05-.15	...
Silversides	.50-2.00	.50-1.00	.75-2.00	2.00-2.00
Snapper, red	.12 1/2-.17	.11-.12 1/2	.08-.12 1/2	.10-.10
Sole, gray	.10-.15	.12 1/2-.14	...	.10-.14
Sole, lemon	.12-.14	.15-.16	.14-.15	.15-.15
Spanish Mackerel	.08-.12 1/2	.05 1/2-.15	.05 1/2-.07 1/2	.07-.11
Spot (Lafayette)	.02 1/2-.02 1/2	...	...	...
Striped bass	.11 1/2-.20	.11-.15	.18-.23	.22-.25
Tautog	.07-.08	.04-.10	.06-.10	.09-.10
Tilefish	.04-.07	...	.02-.08	...
Whiting	.01 1/4-.02	.01-.03	.01-.05	.03-.07
White perch	.06-.06	...	...	.03-.04
Yellowtails	.02-.07	.02-.07	.01 1/2-.07	.02-.10
Clams, hard	1.00-3.00	1.50-3.50	1.50-3.00	1.75-4.00
Clams, soft	1.25-2.50	1.00-1.50	1.25-1.75	1.50-2.25
Conchs	1.50-2.25	1.50-5.00	1.75-2.00	1.50-1.75
Crabs, hard	1.25-1.75	1.50-1.75	1.25-1.50	1.50-2.00
Crabs, soft	.35-5.00	.30-.85	...	...
Crab meat	.40-.85	.20-.60	.25-.60	.55-.90
Lobsters	.21-.45	.22-.43	.22-.44	.23-.48
Mussels	.50-.75	.50-1.00	.50-1.00	.50-.75
Scallops, bay	3.50-6.00	2.75-5.00	3.65-4.75	3.65-5.50
Scallops, sea	1.50-1.55	1.55-1.60	1.45-1.50	1.50-1.50
Shrimp	.09-.17	.07 1/2-.14	.12-.17	.12-.20
Squid	.05-.10	.02-.06	.05-.06	...
Frogs legs	.40-.60	.40-.60	...	.40-.45

Edgar Chester Greason, Sr.

Edgar Chester Greason, Sr., 55, prominent wholesale fish merchant in New York City, and the founder of the first chain of seafood stores in New York, died January 12 after a brief illness at his home in Long Branch, N. J.

Mr. Greason owned a seafood store in New York when he was 20 years old and a few years later started a chain of such establishments, being the first operator of a fish-store chain. For the last 15 years he has been a wholesale fish merchant in Fulton Market, New York City, where he headed five companies. He was president of Teddy's, the House of Sea Food; the West English Company, the Manhattan Company, the Fresh Water Fish Exchange, and the J. H. Michaels Company.

His five houses in Fulton Market handled an average of 600,000 pounds of fish a week, supplying many hotels, steamships and institutions. To supplement this trade he organized the 153 South Street Corporation, a fleet of 41 trucks and the Front Street Cold Storage Company, a refrigerating plant for storing fish. He also was a member of the Board of Directors of the Fishery Council.



# TANGLEFIN NETTING

**"CATCHES MORE FISH"**

LINEN & COTTON GILL NETTING  
SEINE, POUND & TRAP NETTING

**LUDLOW MANUFACTURING & SALES CO.,**  
NATIONAL NET & TWINE DIVISION  
211 CONGRESS ST., BOSTON, MASS.



FOLDING TYPES    POSITIVE PROTECTION • LIGHTWEIGHT • POPULAR PRICES    UTILITY TYPES

## NORTHILL Safety ANCHORS

For Sale by All Leading Marine Establishments \* Northhill Company, Inc., 6824 McKinley Ave., Los Angeles, Cal.

### Lister Sales

**G**ORTON-PEW Company has purchased a Model CD 8 hp. 1200 rpm. Lister Diesel engine for the auxiliary plant on the schooner *Wm. Putnam*.

Central Wharf Vessels have purchased a Model CD 8 hp. 1200 rpm. Lister Diesel engine for the auxiliary plant on the schooner *Gertrude Thebaud*. This is the third Lister engine bought by this concern. The previous installations were made in the schooners *Raymonde* and *Dawn*.

The Boston Pilots Association have purchased a complete Lister Diesel driven plant consisting of a Model CD 8 hp. 1200 rpm. Lister Diesel engine.

These sales have been made by the Diesel Engine Sales and Engineering Corp., 265 Northern Avenue, Boston, Mass.

### Oyster Conference to be Held

**A** CONFERENCE has been arranged between representatives of the New Jersey State Board of Health and the Board of Shell Fisheries and Dr. Thomas Parron, Surgeon General of the United States and other officials of the Federal Health Service.

In a recent bulletin the Government outlined sanitary standards for the oyster industry which are believed to work against the best interests of local growers.

The public health service letter was sent to all States which produce oysters. It stated conditions under which the service would approve certificates which are issued by State Health Departments.

### Where to Ship

These companies are in the market for fish and shellfish.

#### BOSTON, MASS.

R. S. Hamilton Co., 17 Administration Bldg., Fish Pier.

#### CHICAGO, ILL.

Booth Fisheries Corp., 309 West Jackson Blvd.  
J. A. Klafin, 209 N. Union Ave.

#### NEW YORK, N. Y.

Beyer Fish Co., Fulton Fish Market.  
Chesebro Bros. & Robbins, 4 Fulton Market.  
John Dais Co., Fulton Market.  
Eastern Commission Co., 19 Fulton Market.  
Lester & Toner, Inc., Fulton Fish Market.  
South Fish Co., 31 Fulton Fish Market.  
Frank W. Wilkisson, Inc., 16 Fulton Market.

#### PHILADELPHIA, PA.

C. E. Warner Co., Inc., 8 Dock St. Fish Market.

## The Linen Thread Co., Inc.

Gold Medal Cotton Nets and Twines

A. N. & T. Coy Linen Nets

Manila Trawls, Burnham Lines

#### Sales Offices:

New York    Boston    Gloucester    Baltimore  
Chicago    San Francisco

## Hathaway Machinery Co.

Original

Flax Packed

**STERN BEARINGS**

**Fairhaven, Mass.**



When You Ship FISH, LOBSTERS  
or SCALLOPS to the Boston Market  
FOR BEST RESULTS SHIP TO  
**R. S. HAMILTON COMPANY**

On the Boston Market over 30 Years  
17 Administration Building Fish Pier, Boston, Mass.

### MARINE BARGAINS

Party Boats—38' x 9' x 3', gas-auto powered, good condition \$450. 38'9 x 10' x 3'6, Palmer powered \$850. 38' x 11'4 x 3' new '38 Studebaker powered, all like new \$1150. Sardine Smacks—60' x 13'6 x 4', capacity 500 bushels, Standard gas powered, \$1400, including 1940 carrying contract. 48' x 11'4 x 4' Buick powered, capacity 300 bu. \$1050. Dry well lobster smack 52' x 13'6 x 5' gas twin screw, Morse built 1931, \$3,900, and many others, including Tugs, Tankers, Freighters, auxiliaries, etc. Diesel Engines: 90 hp. Superior, rebuilt \$1250. 120 hp. Kahlenberg, \$2,350. 180 hp. F.M., Model 35, rebuilt, \$2,500. 120 hp. F.M., Model F, \$1,450. 70 hp. Wolverine, fine condition, \$1,500. Gas Engines: Kermath 35 hp., \$225. Kermath Sea Master with reduction 85 hp., \$300. Kermath Sea Farer, 200 hp., rebuilt, \$550. 85 hp. Red Wing, \$200. ZR 4, 40 hp. Palmer, rebuilt, \$450. Lathrop 150 hp. Mystic, \$600, and many others. Write us as to your requirements. KNOX MARINE EXCHANGE, Camden, Maine.

### FOR SALE

#### Generators

One single cylinder *Delco-Light* 1250 watt 110 v. DC generator, and one *Delco-Light* four cylinder 1500 watt 110 v. DC generator complete with 56 *Ironclad* 9 plate wet cells, switch boxes, etc., all in top condition. Price complete \$355 FOB Philadelphia, where units can be inspected and operated. Osco Motors Corp., 3646A North Lawrence St., Philadelphia, Pa.

#### Palmer Engine

Palmer Engine, Model ZR-4, 40 hp. In excellent condition. Price \$450.00 F.O.B. Portland, Maine. Eastern Tractor & Equipment Co., South Portland, Maine.

#### Smack

Smack *Edward J.*, 63 ft. x 14 ft. 4 in. x 6 ft. Powered with a 45 C.O. Has electric lighting plant. Engine and boat as good as new. Price reasonable. E. Jameson & Sons, Portsmouth, N. H.

#### Suits of Sails

Two suits of sails from 98 ft. schooner yacht, also 26 ft. Sea Bright Skiff with a 40 hp. engine installed. Frank Upson, Sail Maker, New Haven, Conn.

#### Printing

Let us save you money on your printing. Letterheads 5000 for \$8.50. Envelopes, Billheads, Statements, 5000 for \$7.50. Business Cards 85 cents per 1000. Send a sample of your present printing for price. Address NICHOLS AND COMPANY, Kingston, Georgia.

## JOHN G. ALDEN

NAVAL ARCHITECT

MARINE ENGINEER

Specializing in Diesel vessel design

131 STATE STREET

BOSTON, MASS.

### MARINE ENGINES FOR SALE

#### No Reasonable Offer Refused

- 1-6 Cylinder 200 H.P. Hall Scott Reconditioned
- 1-6 Cylinder Medium Duty Elco (90-120 H.P.) Reconditioned
- 1-6 Cylinder (64-126 H.P. Buda (as is)
- 1-8 Cylinder 225 H.P. "V" Type
- CHRIS CRAFT Motor Reconditioned
- 1 Pair 6 Cylinder Reduction Gear
- CHRIS CRAFT Motors (90 H.P.) — each
- Like New, Run About 50 Hours
- Will sell the pair or separately
- 1-6 Cylinder (200 H.P.) Kermath Motor

Franklin G. Post & Son Inc.

Mystic, Conn.

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### AUTO CONVERSIONS AND PARTS

Made the way you want them, at the price you are glad to pay. Strong and durable; easily assembled, well designed and carefully made of the best materials on special machines by conscientious workmen. Marine-type manifolds for all auto engines 4 cyl. Star, Durant \$17; Whippet, Model A and B Ford, etc., \$18; 6 cyl. Pontiac, Chevrolet, 70-72-75 Chrysler, etc., \$30; V-8 \$24 per pair, Studebaker Commander, Buick, etc., \$35. 8 cyl. \$40; Downdraft types \$5 additional. All of the combination intake and exhaust type with the hot-spot feature, made of chrome-nickel iron. Bronze gear pumps \$10. Buy here and save. We convert your auto transmission to give you the needed high-speed reverse, most makes \$20. It is more powerful and sure; consumes less power; and needs no adjusting or attention. Hundreds in use, every user delighted. We also manufacture and carry in stock, propellers, shafts, couplings, adjustable shaft logs and struts, steering wheels, rudders, engine and reverse control, deck and hull fittings, etc., in fact, anything you need for your boat. Buy from the factory and keep the dealer's profit for yourself. You run no risk. Test out our goods at our expense. Your guarantee is SATISFACTION OR YOUR MONEY BACK. Send us your order now and be ready early to sail when the season opens.

CONVERSION PARTS COMPANY 275 ADAMS STREET DORCHESTER DISTRICT BOSTON, MASS.

# Where-to-Buy Directory

## Equipment, Gear, Supplies, Service

Companies whose names are starred (\*) have display advertisements in this issue; see Index to Advertisers for page numbers.

### ANCHORS

\*Northill Co., Inc., 6824 McKinley Ave., Los Angeles, Calif.

### BATTERIES

#### Dry Cell

"Eveready"; National Carbon Co., Inc., 30 E. 42nd St., New York, N. Y.

#### Storage

Edison Storage Battery Co., West Orange, N. J.  
"Exide"; Electric Storage Battery Co., Philadelphia, Pa.

Willard Storage Battery Co., Cleveland, Ohio.

### BOAT EQUIPMENT & SUPPLIES

The E. J. Willis Co., 91 Chambers St., New York, N. Y.

### CAN MANUFACTURERS

Continental Can Co., 100 E. 42nd St., New York, N. Y.

Crown Can Co., Philadelphia, Pa.

National Can Corporation, 110 E. 42nd St., New York, N. Y.

### CLUTCHES

\*Kinney Mfg. Co., 3541 Washington St., Boston, Mass.

### COLD STORAGE

Quaker City Cold Storage Co., Philadelphia, Pa.  
Western Refrigerating Co., 18-20 E. Hubbard St., Chicago, Ill.

### CORDAGE MANUFACTURERS

American Manufacturing Co., Noble and West Sts., Brooklyn, N. Y.

\*Columbian Rope Co., Auburn, N. Y.

Edwin H. Fidler Co.

\*New Bedford Cordage Co., 233 Broadway, New York, N. Y.

Plymouth Cordage Co., North Plymouth, Mass.

Wall Rope Works, 48 South St., New York.

Whitlock Cordage Co., 46 South St., New York, N. Y.

### CYLINDER LINERS, PISTONS, RINGS

Hunt-Spiller Manufacturing Co., 383 Dorchester Ave., Boston, Mass.

### DEPTH FINDERS

Submarine Signal Co., 160 State St., Boston, Mass.

### DIESEL GENERATING SETS

\*Bolinders Co., 33 Rector St., New York, N. Y.  
Diesel Engine Sales & Engineering Corp., 263 Northern Ave., Boston, Mass.

### ELECTRICAL EQUIPMENT

Diehl Manufacturing Co., 75 Kneeland St., Boston, Mass.

Electro Dynamic Works, Bayonne, N. J.

General Electric Co., Schenectady, N. Y.

### ENGINE MANUFACTURERS

#### Diesel Engines

\*Atlas Imperial Diesel Engine Co., 115 Broad St., New York, N. Y.

\*Bolinders Co., 33 Rector St., New York, N. Y.

\*The Buda Co., Harvey, Ill.

Caterpillar Tractor Co., Peoria, Ill.

Cooper-Bessemer Corp., Mount Vernon, O.

\*Covic Diesel Div., Northill Co., Inc., 6824

McKinley Ave., Los Angeles, Calif.

Cummins Engine Co., Columbus, Ind.

Electric Boat Co., Groton, Conn.

\*Fairbanks, Morse & Co., Chicago, Ill.

Gray Marine Motor Co., 646 Canton Ave., Detroit, Mich.

\*The National Supply Co., Superior Diesels, Springfield, Ohio; Philadelphia, Pa.

\*Red Wing Motor Co., Red Wing, Minn.

Sterling Engine Co., 1270 Niagara St., Buffalo, N. Y.

\*Wolverine Motor Works, Inc., 1 Union Ave., Bridgeport, Conn.

Worthington Pump & Machinery Corp., 421 Worthington Ave., Harrison, N. J.

### Ford Conversions and Parts

Lehman Engineering Co., 972 Broad St., Newark, N. J.

Palmer Bros. Engines, Inc., 14 Water St., Cos Cob, Conn.

Oscro Motors Corp., 3644 N. Lawrence St., Philadelphia, Pa.

### Fuel Oil Engines

Palmer Bros. Engines, Inc., 14 Water St., Cos Cob, Conn.

\*Red Wing Motor Co., Red Wing, Minn.

### Gasoline Engines

\*The Buda Co., Harvey, Ill.

Gray Marine Motor Co., 646 Canton Ave., Detroit, Mich.

Palmer Bros. Engines, Inc., 14 Water St., Cos Cob, Conn.

\*Red Wing Motor Co., Red Wing, Minn.

Sterling Engine Co., 1270 Niagara St., Buffalo, N. Y.

\*Wolverine Motor Works, Inc., 1 Union Ave., Bridgeport, Conn.

### FISHING GEAR

The Great Grimsby Coal, Salt and Tanning Co., Ltd., Grimsby, England.

### FISH SCALERS

#### Portable, Flexible Shaft

N. A. Strand & Co., 5001 N. Lincoln St., Chicago, Ill.

### FLOAT DOPE

Wisconsin Paint Mfg. Co., Inc., 3710 North Richards St., Milwaukee, Wis.

### FUEL INJECTION EQUIPMENT

American Bosch Corp., Springfield, Mass.

### HOOFS, Fish

"Mustad"; Sidney R. Baxter & Co., 90 Commercial St., Boston, Mass.

### ICE BREAKERS

\*"Creasey"; Gifford-Wood Co., Hudson, N. Y.

### KNIVES (Shell Fish)

Robert Murphy's Sons Co., Ayer, Mass.

### NAUTICAL INSTRUMENTS

Kelvin-White Co., 90 State St., Boston, Mass.

### NAVAL ARCHITECTS

\*John G. Alden, 131 State St., Boston, Mass.

### NETS AND NETTING

W. A. Augur, Inc., 35 Fulton St., New York, N. Y.

\*The Linen Thread Co., Inc., 575 Atlantic Ave., Boston, Mass.

\*National Net & Twine Co., 211 Congress St., Boston, Mass.

### NET PRESERVATIVES

"Campbell's Copper Compound"; International Chain & Mfg. Co., York, Pa.

### OILS (Fuel, Lubricating, Gasoline)

\*"Esomarine"; Penola, Inc., 26 Broadway, New York, N. Y.

Shell Oil Co., Inc., 50 West 50th St., New York, N. Y.

Standard Oil Co. of Calif., Standard Oil Bldg., San Francisco, Calif.

### OILED AND RUBBER CLOTHING

\*D. O. Frost Corp., Gloucester, Mass.

Hodgman Rubber Co., Framingham, Mass.

M. L. Snyder & Son, 1812-72 E. Boston Ave., Philadelphia, Pa.

### PAINTS

\*Pettit Paint Co., Belleville, N. J.

Edw. Smith & Co., Long Island City, N. Y.

Tarr & Wosson, Ltd., Gloucester, Mass.

### PROPELLERS

Columbian Bronze Corp., Freeport, N. Y.

\*Hyde Windlass Co., Bath, Me.

Michigan Wheel Corp., Grand Rapids, Mich.

### RADIO DIRECTION FINDERS

General Communication Co., 677 Beacon St., Boston, Mass.

### RADIO TELEPHONES

Western Electric Co., 195 Broadway, New York, N. Y.

### RANGES

\*"Shipmate"; Stamford Foundry Co., Stamford, Conn.

### REVERSE & REDUCTION GEARS

Snow & Petrelli Mfg. Co., 25 Fox St., New Haven, Conn.

Twin Disc Clutch Co., 1341 Racine St., Racine, Wis.

### SHIPBUILDERS, BOATYARDS

The Charleston Shipbuilding & Drydock Co., Charleston, S. C.

\*Bethlehem Shipbuilding Corp., Bethlehem, Pa.

Portland Yacht Service, So. Portland, Me.

### SHIP CHANDLERS

Sherman B. Ruth, Inc., Steamboat Wharf, Gloucester, Mass.

### STEERING GEAR

The Edson Corp., 49-51 D St., South Boston, Mass.

### STERN BEARINGS

Chapman Products, 166 Thames St., Newport, R. I.

\*Hathaway Machinery Co., New Bedford, Mass.

### TELEGRAPH SERVICE

Postal Telegraph, 67 Broad St., New York, N. Y.

### THRUST BEARINGS

Kingsbury Machine Works, Inc., 4316-28 Tackawanna St., Frankford, Philadelphia, Pa.

### TRANSPORTATION

Fish Forwarding Co., 151 South St., New York, N. Y.

### TRAWLING EQUIPMENT

New England Trawler Equipment Co., National Docks, Lewis St., E. Boston, Mass.

### WIRE BASKETS

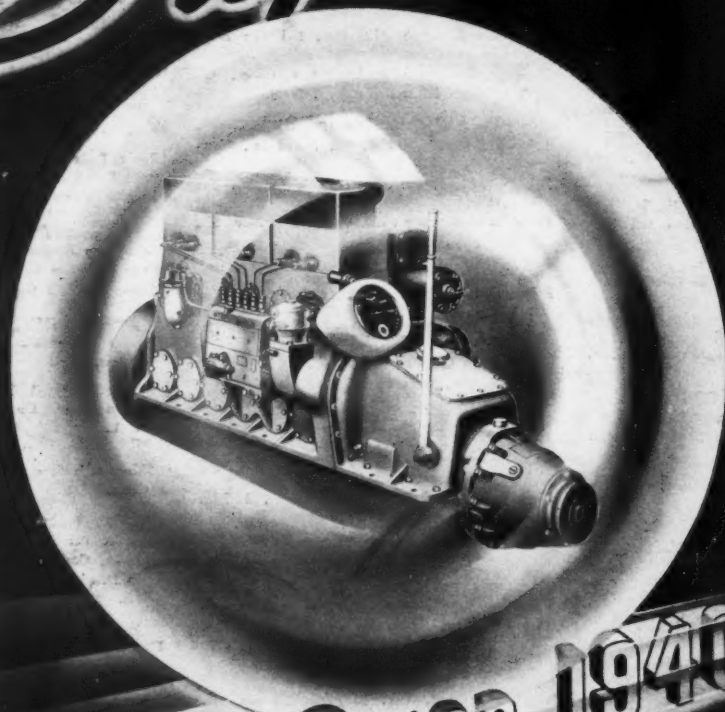
Massillon Wire Basket Co., 204 4th St., N.W., Massillon, Ohio.

### WIRE ROPE

Bethlehem Steel Co., Bethlehem, Pa.

IT'S

Superior



DIESELS FOR 1940

THE NATIONAL SUPPLY COMPANY

SUPERIOR ENGINE DIVISION

SPRINGFIELD, OHIO

PHILADELPHIA, PA.

LOS ANGELES, CAL.

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